

FINAL

**BAYOU TERREBONNE WATERSHED TMDL
FOR BIOCHEMICAL OXYGEN-DEMANDING SUBSTANCES AND NUTRIENTS**

Subsegment 120301

SURVEYED 08/06/2003

TMDL REPORT

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EXECUTIVE SUMMARY

This report presents the results of a watershed based, calibrated modeling analysis of Bayou Terrebonne. The modeling was conducted to establish a TMDL for biochemical oxygen-demanding pollutants and nutrients for the Bayou Terrebonne watershed (Subsegment 120301).

Bayou Terrebonne is located in the Terrebonne Basin in Subsegment 120301. The subsegment begins in the city of Thibodeaux, LA at the old confluence of Bayou Terrebonne and Bayou Lafourche. The subsegment ends in Houma, LA at the junction of Bayou Terrebonne and the Intracoastal Waterway (ICWW). The portion of Bayou Terrebonne located in Thibodeaux no longer functions as a natural bayou. The waterbody has been placed in a culvert in the median of Canal Boulevard. The primary function of the waterbody is to convey stormwater and some effluent from local facilities received from nearby businesses through local ditches. It is believed that this portion of the waterbody has been completely severed from the remainder of the waterbody at a former railroad track on the south side of Thibodeaux. Everything north of this site flows into Bayou Lafourche. All stormwater and discharges south of the railroad flow towards the Intracoastal Waterway. The modeled headwater reach starts as a ditch that receives runoff from the adjacent urban and residential areas. Generally, there is no flow in these reaches except after rain events, during which the primary function of the bayou is to convey water draining from nearby ditches. For much of the time, these reaches of the bayou may even be stagnant with minimal depth.

Bayou Terrebonne runs though sparsely populated agricultural areas until the bayou reaches the outer limits of Houma. Bayou Terrebonne flows through the heart of Houma and intersects the Intracoastal Waterway. There are no waterbodies with a free flowing connection to Bayou Terrebonne. Three weirs exist within a 6 kilometer span of Bayou Terrebonne. These weirs serve to retain water during periods of low flow. They also cause the bayou to retain some of the pollutants that will settle out of the water column upstream of the weirs.

Most of the modeled reaches are shallow and stagnant with minimal sources of advective flow. The stream is primarily used for the drainage of rural and urban stormwater. The bayou contains advective flow primarily during and after rainfall events. Portions of the waterbody may have been channelized. The riparian vegetation has been removed from most of the waterbody.

South of the weirs, Bayou Terrebonne is heavily influenced by urban landuse and the tides emanating from the Gulf of Mexico. This section of the waterbody is heavily populated and channelized. Most the banks are reinforced with retaining walls. Ditches and stormwater drains carry the effluent from some of the local dischargers to the mainstem of the waterbody.

These two distinct sections of Bayou Terrebonne (Subsegment 120301) are practically unrelated. Due to the extreme differences in the waterbody north and south of the weirs, Bayou Terrebonne was simulated with two calibrated models. These models shall be referred to Upper Terrebonne and Lower Terrebonne, respectively.

Discharger inventory research by LDEQ personnel indicated that 80 permitted facilities and two municipalities existed within Subsegment 120301. However, research showed that 53 of the facilities discharge to canals or bayous that do not flow into Bayou Terrebonne. These facilities were not included in the stream model or the TMDL. Twenty-six of the facilities discharge to a ditch, pipe, or

storm drain leading to Bayou Terrebonne. However their flow was too small or the outfall was far enough away so that the impact upon Bayou Terrebonne was negligible. Only one facility, the Schriever School, was considered to have a possible impact to Bayou Terrebonne due to its expected effluent discharge and the location of its outfall. Therefore, it was included in the projection models. The survey records indicate that none of the facilities were discharging during the survey.

Existing MS4 permits are listed with other unmodeled dischargers in the Subsegment 120301. Because storm water discharges are due to storm events that are highly variable in frequency and duration and are not easily characterized, it is difficult to determine with precision or certainty the actual and projected loadings for individual dischargers or groups of dischargers. Therefore, it is intended that the permit conditions of the individual dischargers remain in effect. Limits for MS4s should be expressed as best management practices rather than as numeric effluent limits.

Input data for the calibration model was developed from data collected during the survey conducted August 6, 2003. A satisfactory calibration was achieved for the main stem. In those cases where the calibration was not as accurate, the difference was in the conservative direction.

A weather station was deployed in an open area east of the Hollywood Street bridge. Climatology data including wind speed and direction, air temperature, precipitation, solar radiation, relative humidity, air pressure, and soil temperature was obtained during the survey.

The Louisiana Total Maximum Daily Load Technical Procedures (Revision 10), dated 08/10/2006, has been utilized in this study.

Modeling was limited to low flow scenarios for both the calibration and the projections since the constituent of concern was dissolved oxygen and the available data was limited to low flow conditions. Significant growth is not expected for this area. Therefore, a 10% MOS for nonpoint loading was used in all projection models. The model used to simulate the hydrologic and water quality characteristics of the stream was LAQUAL.

The results of the model simulations of Upper Terrebonne show that the water quality standard for dissolved oxygen of 5.0 mg/l can be maintained under the summer critical conditions with an 80% reduction of the total nonpoint biological oxygen demand (BOD) loading. The projected minimum DO is 5.24 mg/l. This projection indicates the dissolved oxygen standard of 5.0 mg/L may not be appropriate for this waterbody. The primary problem in Upper Terrebonne is the lack of sustained flow.

It should be noted that the nonpoint load includes any residual load from the various facilities along Bayou Terrebonne that were not exclusively simulated with the model. Based upon the various runs, the conditions of Bayou Terrebonne, and its primary function as a drainage ditch, it is recommended that the Schriever School be allowed to continue discharging at the current permit limit of 30 mg/L for CBOD₅. Projections with and without the Schriever School indicate the school has a negligible impact on the waterbody.

Winter projections for Upper Terrebonne demonstrated that the dissolved oxygen standard could be maintained with an 80 percent reduction in the total nonpoint load and treatment level of 30 mg/L CBOD₅ at the Schriever School. The minimum dissolved oxygen concentration is 7.45 mg/L.

The summer and winter projection models for Lower Terrebonne indicated that the current dissolved oxygen standard of 5.0 mg/L can be maintained with a 70% reduction in the total nonpoint BOD load. The projected minimum DO concentrations are 5.11 mg/L and 6.17 mg/L, respectively.

Table 1. Point Source TMDL Summary, Subsegment 120301

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	GPD	
Schriever School	19162/ LAG540733	10,650	30		25,000	6250	30		Included in the model
City of Thibodaux Municipal Separate Storm Sewer System (MS4)*	108472/ LAR041011								Not included in the model-stormwater
Terrebonne Parish Municipal Separate Storm Sewer System (MS4)*	108407/ LAR041023								Not included in the model-stormwater
Andrew Price School*	51973/ LAG531000	3,880	45 (weekly average)						Not included in the model-too small
Partek Laboratories*	42776/ LAG530409	220	45 (weekly average)						Not included in the model-too small, too far from Bayou Terrebonne
Chevron Jubilee 4606*	41775/ LAG750205	360	45 (weekly average)						Not included in the model-too small
North Branch of the Terrebonne Parish Library*	38494/ LAG531241	1,000	45 (weekly average)						Not included in the model-too small
United Parcel Service, Houma Center*	83322/ LA0096547	480	45 (weekly average)						Not included in the model-too small
Jubilee Exxon 4608*	41774/ LAG750289	360	45 (weekly average)						Not included in the model-too small

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Plug and Abondonment Division*	27338/ LA0106291	200	45 (weekly average)						Not included in the model-too small
Burger King Restaurant*	43458/ LAG530804	3,200	30						Not included in the model-too small
Best Western Houma Inn*	33840/ LAG540951	8,300	30						Not included in the model-too small
Colonel's Truck Stop and Casino*	95797/ LAG541061	10,000	30						Not included in the model-too small
McDonald's*	42440/ LAG530363	2,300	45 (weekly average)						Not included in the model-too small
Big Boy Seafood*	12197/ LA119814	980	45 mg/L (weekly average)						Not included in the model-too small
A-1 Used Cars*	11737/ LAG470200	80	45 mg/L (weekly average)						Not included in the model-too small
McDonalds #12185*	42440/ LAG530363	2,600	45 mg/L (weekly average)						Not included in the model-too small
Burger King #11942*	43458/ LAG530804	3,200	45 mg/L (weekly average)						Not included in the model-too small
Bayou Cane Hall, LLC*	98444/ LAG531400	985	45 mg/L (weekly average)						Not included in the model-too small

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Gray Self Serve*	77717/ LAG531410	2,120	45 mg/L (weekly average)						Not included in the model-too small
Domino's Pizza Store #5243*	125829/ LAG531744	100	45 mg/L (weekly average)						Not included in the model-too small
Bayou Cane Sport's Bar*	128480/ LAG531801	600	45 mg/L (weekly average)						Not included in the model-too small
Andrew Price Recreation Center*	129740/ LAG531865	750	45 mg/L (weekly average)						Not included in the model-too small
BNSF Railway Co- Schriever Yard STP*	137313/ LAG532018	140	45 mg/L (weekly average)						Not included in the model-too small
Gray Truck Stop and Casino*	137529/ LAG541411	7,790	30 mg/L (monthly average)						Not included in the model-too small
Major Suds Car Wash*	139326/ LAG75055	500	45 mg/L (weekly average)						Not included in the model-too small
Excell Crane and Hydraulics, Inc.*	23738/ LAG480230	100	45 mg/L (weekly average)						Not included in the model-too small
Schlumberger Facility*	2184/ LAG480002	50	45 mg/L (weekly average)						Not included in the model-too small
UPS Houma Center*	83322/ LAG480327	480	45 mg/L (weekly average)						Not included in the model-too small

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			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Paul's Auto Salvage	25789/ LAG531899	160	45 mg/L (weekly average)						Not included in model- discharges to St. Louis Bayou
Willowdale Subdiviaion	43627/ LAG560015	37,200	20						Not included in model- discharges to St. Louis Bayou
Country Boy Trailer Park	19835/ LAG540243	<10,000	30						Not included in model- discharges to Cypress Co. Canal to St. Louis Banal to ICWW
Fairlane Bayou	41486/ LAG540029	18,400	30						Not included in model- discharges to Ouiski Bayou to Bayou Cane
Schlumberger Well Services, Houma Operations	19631/ LA0081094	2,000	45 mg/L (weekly average)						Outfall 002-Not included in model-discharges to St. Louis Canal or Bayou Blue
		4,500	45 mg/L (weekly average)						Outfall 006-Not included in model-discharges to St. Louis Canal or Bayou Blue
Schlumberger Well Services, Houme Open Hole	22427/ LA0084921	275	45 mg/L (weekly average)						Not included in model- discharges to Caro Canal to Houma Navigation Canal
North Treatment Plant-Terrebonne Parish Consolidated Gov't.	19176/ LA0040207	6,730,000	10						Not included in model- discharges to St. Louis Canal
Caldwell Middle School-Terrebonne Parish School Board	19172/ LAG540722	12,020	30						Not included in model- discharges to Ouiski Bayou to Bayou Black

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Coteau Bayou Blue Elementary School-Terrebonne Parish School Board	19171/ LAG540723	14,000	30						Not included in model-discharges to Bayou Little Coteau to St. Louis Bayou
Eureka Heights Subdivision	41432/ LAG570018	39,360	10						Not included in model-discharges to St. Louis Canal
Lumen Christ Retreat Center	18944/ LAG540272	870	30						Not included in model-discharges to Ouiski Bayou to Bayou Black
Suburban Estates Subdivision	43626/ LAG560240	57,600	10						Not included in model-discharges to St. Louis Bayou
Schreiver Water Plant & STP	27838/ LAG530566	327	45 mg/L (weekly average)						Not included in model-discharges to Bayou Blue or St. Louis Canal
Tara Subdivision	18673/ LAG570131	67,440	10						Not included in model-discharges to Little Bayou Coteau
Danny and Clyde Food Store # 23	40772/ LAG531133	500	45 mg/L (weekly average)						Not included in model-discharges to Little Bayou Black
Capri Court	19887/ LAG540221	<25,000	30						Not included in the model-discharges to St. Louis Canal
Computalog Wireless Services, Inc.	12646/ LAG480406	151	45 mg/L (weekly average)						Not included in model-discharges to Hollywood Canal or Bayou Blue
Johnson Ridge Community Improvements	43509/ LAG560136	45,000	20						Not included in model-discharges to St. Louis Canal

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Mobil Estates Subdivision	42540/ LAG570214	74,800	10						Not included in model-discharges to St. Louis Canal
South Electric Cooperative Assn.	9181/ LAG750272	600	45 mg/L (weekly average)						Not included in model-discharges to St. Louis Canal
Coteau Trailer Park	41101/ LAG540238	<25,000	30						Not included in model-discharges to Lake Coteau to Lake Houma
Little Bayou Black Soc J3307	40759/ LAG530991	480	45 mg/L (weekly average)						Not included in model-discharges to Little Bayou Black
West Building Materials	43928/ LAG530909	100	45 mg/L (weekly average)						Not included in model-discharges to Little Bayou Black
Matherne Development	33902/ LA0113255	114,200	10						Not included in model-discharges to Bayou Cane
EXXON Jubilee #624	82058/ LAG540958	<10,000	30						Not included in model-discharges to Little Bayou Coteau
Chateau Audobon	87935/ LAG531130	<2,500	45 mg/L (weekly average)						Not included in model-discharges to St. Louis Canal
Levityown STP- Terrebonne Parish Consolidated Gov't	43510/ LAG560135	30,000	20						Not included in model-discharges to Ouiski Bayou to Little Bayou Black
Lake Houmas Inn	42237/ LAG540466	6,500	30						Not included in the model-discharges to St. Louis Canal to ICWW

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Sub District 02 Headquarters	18410/ LAG530166	1,000	45 mg/L (weekly average)						Not included in the model-discharges to a ditch to Bayou Cane
Frank's Casing Crew and Rental Tools, Inc.	41566/ LAG480590	80	45 mg/L (weekly average)						Not included in the model-discharges to a ditch to ICWW
Circle K-Quality Food Store, Inc	75400/ LAG531619	910	45 mg/L (weekly average)						Not included in the model-discharges to ICWW
Eager Eagle Productions, LLC	141935/ LAG532104	100	45 mg/L (weekly average)						Not included in the model-discharges to a ditch to Bayou Cane to Bayou Black
Kenneth Rembert Mobile Home Park	42035/ LAG540823	12,800	30						Not included in the model-discharges to a ditch to ICWW
Olsen Securities Corp.	42718/ LAG540847	12,000	30						Not included in the model-discharges to a ditch to St. Louis Bayou
Coteau 90 Exxon and Casino	68924/ LAG541041	<17,000	30						Not included in the model-discharges to a ditch Caro Canal to St. Louis Bayou to ICWW
Bayou Blue Mobile Home Court WWTP	121640/ LAG541228	20,000	30						Not included in the model-discharges to St. Louis Bayou to ICWW
Ferantello Estates WWTP	123218/ LAG570261	27,600	10						Not included in the model-discharges to local drainage to Ouiski Bayou

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Quiet Oaks Subdivision WWTp	128702/ LAG570354	36,800	10						Not included in the model-discharges to St. Louis Bayou to ICWW
The Landing on Bayou Cane	106649/ LAG570258	69,280	10						Not included in the model-discharges to Bayou Cane
Jolie Oaks Subdivision*	99377/ LAG541113	20,000	30 mg/L (monthly average)						Not included in the model-discharges to St. Louis Bayou
Baker Atlas	19378/ LAG480081	200	45 mg/L (weekly average)						Not included in the model-discharges to St. Louis Bayou
Security Boulevard Rentals, LLC	119160/ LAG480380	760	45 mg/L (weekly average)						Not included in the model-discharges to Little Bayou Black
Southern Technology and Services, Inc.	29921/ LAG480390	1,500	45 mg/L (weekly average)						Not included in the model-discharges to Bayou Little Coteau
Wood Group Logging Services	12646/ LAG480406	151	45 mg/L (weekly average)						Not included in the model-discharges to Hollywood Canal or Bayou Blue
Weatherford US, LP	12878/ LAG480486	500	45 mg/L (weekly average)						Not included in the model-discharges to Black Bayou
T3 Energy Services	11155/ LAG530142	880 (outfall 001) 298 (outfall 002) 182 (outfall 003)	45 mg/L (weekly average)						Not included in the model-discharges to Little Black Bayou

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Geri Leblanc Pontiac Buick GMC Truck	30020/ LAG470143								Not included in the model; connected to the City of Thibodaux STP
Trapp Chevrolet Oldsmobile Cadillac	10182/ LAG470041								Not included in the model-connected to parish sewage system
Robichaux Ford	91037/ LAG470117								Not included in the model-connected to the City of Thibodaux STP
Acadia Woods Subdivision	38187/ LAG540083								Not included in model- connected to the City of Thibodaux STP
Eschete Trailer Park	105179								Not included in the model-discharges to parish sewage
Baywash	41208/ LAG750220								Not included in the model-discharges to parish sewage
Enterprise Rent-a-Car	41392/ LAG750229								Not included in the model-no sanitary discharge

* Notes: While this source is not specifically modeled, its residual impact is accounted for in the nonpoint source load component of the model, and that the permit conditions should continue in effect.

Table 2 shows that nonpoint source loading occurs during both the summer and the winter. The greatest deoxygenating impact of the nonpoint loading is manifested in the summer due to resuspension of the load and higher water temperatures. The loads presented in Table 1 include the loads for Upper Terrebonne and Lower Terrebonne

Table 2. Total Maximum Daily Load for Upper and Lower Terrebonne (Sum of CBOD, NH3-N, and SOD)

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(May-Oct) (lbs BOD/day)	% Reduction Required	(Nov-Apr) (lbs BOD/day)
Point Source WLA		29		29
Point Source Reserve MOS = 20%		7		7
Total Nonpoint Source LA	80 / 70	1,479	80 / 70	1,164
Total Nonpoint Source MOS Summer = 10% upstream/10% downstream Winter = 10% upstream/10% downstream		165		130
TMDL		1,680		1,330

***Note1: UCBOD as stated in this allocation is Ultimate CBOD.

UCBOD to CBOD₅ ratio = 2.3 for all treatment levels

Permit allocations are generally based on CBOD₅***

Bayou Terrebonne was listed on the 2002 Consent Decree. The subsegment was found to be "not supporting" its designated uses of Primary Contact Recreation and Fish and Wildlife Propagation. Bayou Terrebonne was subsequently scheduled for TMDL development with other listed waters in the Terrebonne Basin. The suspected causes were organic enrichment/low DO, pathogen indicators, mercury, oil and grease, pesticides, nutrients, noxious aquatic plants, and exotic species. The suspected sources were municipal point source discharges, decentralized on-site treatment systems, sanitary sewer overflows, package plants or other small permitted dischargers. It was "fully supporting" its designated use of Secondary Contact Recreation. This TMDL addresses the impairment of low dissolved oxygen and nutrients.

This TMDL establishes load limitations for oxygen-demanding substances and goals for reduction of those pollutants. LDEQ's position, as stated in the declaratory ruling issued by Dale Givens regarding water quality criteria for nutrients (*Sierra Club v. Givens*, 710 So.2d 249 (La. App. 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998)), is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. The implementation of this TMDL through future wastewater discharge permits (if required) and the implementation of best management practices to control and reduce runoff of soil and oxygen-demanding pollutants from nonpoint sources in the watershed will also control and reduce the nutrient loading from those sources.

LDEQ will work with other agencies such as local Soil Conservation Districts to implement agricultural best management practices in the watershed through the 319 programs. LDEQ will also continue to monitor the waters to determine whether standards are being attained.

In accordance with Section 106 of the federal Clean Water Act and under the authority of the Louisiana Environmental Quality Act, the LDEQ has established a comprehensive program for monitoring the quality of the state's surface waters. The LDEQ Surveillance Section collects surface water samples at various locations, utilizing appropriate sampling methods and procedures for ensuring the quality of the data collected. The objectives of the surface water monitoring program are to determine the quality of the state's surface waters, to develop a long-term data base for water quality trend analysis, and to monitor the effectiveness of pollution controls. The data obtained through the surface water monitoring program is used to develop the state's biennial 305(b) report (*Water Quality Inventory*) and the 303 (d) list of impaired waters. This information is also utilized in establishing priorities for the LDEQ nonpoint source program.

The LDEQ is continuing to implement a watershed approach to the surface water quality monitoring. A four-year sampling cycle has been incorporated. Approximately one quarter of the states watersheds will be sampled in each year so that all of the states watersheds will be sampled within the four-year cycle. This will allow the LDEQ to determine whether there has been any improvement in water quality following implementation of the TMDLs. As the monitoring results are evaluated at the end of each year, waterbodies may be added to or removed from the 303(d) list.

LDEQ has developed this TMDL to be consistent with the State antidegradation policy (LAC 33:IX.1109.A).

TABLE OF CONTENTS

EXECUTIVE SUMMARY	ii
LIST OF FIGURES	xix
1. Introduction.....	1
2. Study Area Description	1
2.1 General Information.....	1
2.2 Water Quality Standards.....	3
2.3 Wastewater Discharges.....	3
2.4 Water Quality Conditions/Assessment.....	9
2.5 Prior Studies.....	19
3. Model Documentation (Upper Terrebonne)	19
3.1 Program Description.....	19
3.2 Calibration Input Data Documentation.....	21
3.2.1 Model Schematics and Maps	21
3.2.2 Model Options, Data Type 2	21
3.2.3 Program Constants, Data Type 3	21
3.2.3 Temperature Correction of Kinetics, Data Type 4	21
3.2.4 Reach Identification Data, Data Type 8	22
3.2.5 Advective Hydraulic Coefficients, Data Type 9.....	22
3.2.6 Dispersive Hydraulic Coefficients, Data Type 10.....	23
3.2.7 Initial Conditions, Data Type 11	23
3.2.8 Reaeration Rates, Data Type 12	23
3.2.9 Sediment Oxygen Demand, Data Type 12	23
3.2.10 Carbonaceous BOD Decay and Settling Rates, Data Type 12	23
3.2.11 Nitrogenous BOD Decay and Settling Rates, Data Type 15	23
3.2.12 Incremental Conditions, Data Types 16, 17, and 18.....	23
3.2.13 Nonpoint Sources, Data Type 19.....	24
3.2.14 Headwaters, Data Types 20, 21, and 22	24
3.2.15 Wasteloads, Data Types 23, 24, and 25.....	24
3.2.16 Lower Boundary Conditions, Data Type 27	24
3.2.17 Dam Data, Data Type 28	24
3.3 Calibration Model Discussion and Results.....	25
3.4 Water Quality Projections (Upper Terrebonne)	25
3.4.1 Critical Conditions, Seasonality and Margin of Safety	27
3.4.2 Input Data Documentation.....	28
3.4.2.2 Temperature Correction of Kinetics, Data Type 4	28
3.4.3 Model Discussion and Results.....	30
3.4.4 Calculated TMDL, WLAs and LAs.....	34
4. Model Documentation (Lower Terrebonne)	35
4.1 Program Description.....	35
4.2 Calibration Input Data Documentation.....	35
4.2.1 Model Schematics and Maps	35
4.2.2 Model Options, Data Type 2	35
4.2.3 Temperature Correction of Kinetics, Data Type 4	35
4.2.4 Reach Identification Data, Data Type 8	35

4.2.5	Advective Hydraulic Coefficients, Data Type 9.....	35
4.2.6	Dispersive Hydraulic Coefficients, Data Type 10.....	36
4.2.7	Initial Conditions, Data Type 11	36
4.2.8	Reaeration Rates, Data Type 12	36
4.2.9	Sediment Oxygen Demand, Data Type 12	36
4.2.10	Carbonaceous BOD Decay and Settling Rates, Data Type 12	36
4.2.11	Nitrogenous BOD Decay and Settling Rates, Data Type 15	37
4.2.12	Incremental Conditions, Data Types 16, 17, and 18.....	37
4.2.13	Nonpoint Sources, Data Type 19.....	37
4.2.14	Headwaters, Data Types 20, 21, and 22	37
4.2.15	Wasteloads, Data Types 23, 24, and 25.....	37
4.2.16	Boundary Conditions, Data Type 27	37
4.2.17	Dam Data, Data Type 28	37
4.3	Model Discussion and Results.....	38
4.4	Water Quality Projections (Lower Terrebonne)	40
4.4.1	Critical Conditions, Seasonality and Margin of Safety	40
4.4.2	Input Data Documentation.....	40
4.4.3	Model Discussion and Results.....	41
4.4.4	Calculated TMDL, WLAs and LAs.....	45
5.	Bayou Terrebonne TMDL (Headwaters to ICWW)	45
6.	Sensitivity Analysis	45
7.	Conclusions	46
8.	References	51
9.	Appendices	53
	APPENDIX A – DETAILED TMDL ANALYSIS	53
	APPENDIX A1 – SUMMER TMDL SUMMARY	54
	APPENDIX A2 – WINTER TMDL SUMMARY	56
	APPENDIX B – CALIBRATION MODEL INPUT AND OUTPUT DATA SETS (Upper Terrebonne Model)	58
	APPENDIX B1 – CALIBRATION OUTPUT GRAPHS, INPUT, OVERLAY, AND OUTPUT FILES.....	59
	APPENDIX B2 –CALIBRATION WATER QUALITY INPUT JUSTIFICATIONS	101
	APPENDIX C – CALIBRATION MODEL INPUT AND OUTPUT DATA SETS (Lower Terrebonne Model)	118
	APPENDIX C1 – CALIBRATION OUTPUT GRAPHS AND INPUT, OVERLAY, AND OUTPUT FILES	119
	APPENDIX C2 – CALIBRATION WATER QUALITY INPUT JUSTIFICATIONS	167
	APPENDIX D – CALIBRATION MODEL DEVELOPMENT	187
	APPENDIX D1 – VECTOR DIAGRAM.....	188
	APPENDIX D2 – REACH SETUP	191
	APPENDIX D3 - CALIBRATION LOADING	193
	APPENDIX D4 – FLOW CALCULATIONS	195
	APPENDIX E – PROJECTION MODEL INPUT AND OUTPUT DATA SETS (Upper Terrebonne Model)	200
	APPENDIX E1 – SUMMER PROJECTION MODEL GRAPHS, INPUT FILE, AND OUTPUT FILE	201

APPENDIX E2 – SUMMER PROJECTION WATER QUALITY INPUT JUSTIFICATIONS....	225
APPENDIX E3 – WINTER PROJECTION MODEL GRAPHS, INPUT FILE, AND OUTPUT FILE	245
APPENDIX E4 – WINTER PROJECTION WATER QUALITY INPUT JUSTIFICATIONS ...	270
WATER QUALITY INPUT DATA AND JUSTIFICATION.....	271
APPENDIX F – PROJECTION MODEL INPUT AND OUTPUT DATA SETS	
(Lower Terrebonne Model)	289
APPENDIX F1 – SUMMER PROJECTION MODEL GRAPHS, INPUT FILE, AND OUTPUT FILE	290
APPENDIX F2 – SUMMER PROJECTION WATER QUALITY INPUT JUSTIFICATIONS	315
APPENDIX F3 – WINTER PROJECTION MODEL GRAPH, INPUT FILE, AND OUTPUT FILE	335
APPENDIX F4 – WINTER PROJECTION WATER QUALITY INPUT JUSTIFICATIONS....	361
WATER QUALITY INPUT DATA AND JUSTIFICATION.....	362
APPENDIX G – PROJECTION MODEL DEVELOPMENT	381
APPENDIX G1 – SUMMER LOADING	382
APPENDIX G2 – WINTER LOADING	387
APPENDIX G3 – CRITICAL TEMPERATURE AND DO ANALYSIS RESULTS.....	392
APPENDIX H – SURVEY DATA MEASUREMENTS AND ANALYSIS	394
APPENDIX H1 –WATER QUALITY DATA.....	395
APPENDIX H2 – CROSS SECTIONS AND DISCHARGE MEASUREMENTS.....	428
APPENDIX H3 – FIELD NOTES	447
APPENDIX H4 - CONTINUOUS MONITOR DATA.....	540
APPENDIX H5 – BOD CALCULATIONS.....	668
APPENDIX H6 – DYE STUDY CALCULATIONS	686
APPENDIX H7 – WEATHER DATA	701
APPENDIX H8 – RECONNAISSANCE SURVEY PICTURES.....	715
APPENDIX H9 – DAM / WEIR DATA.....	733
APPENDIX I – HISTORICAL AND AMBIENT DATA	735
APPENDIX I1 – AMBIENT DATA	736
APPENDIX I2 – LAND USE.....	738
APPENDIX J – MAPS AND DIAGRAMS	740
APPENDIX J1 - OVERVIEW MAPS	741
APPENDIX J2 – LANDUSE MAP.....	745
APPENDIX J3 – LA PRECIPITATION MAP	747
APPENDIX K – SENSITIVITY ANALYSIS	749
APPENDIX K1 – SENSITIVITY SUMMARY TABLE , GRAPHS, INPUT AND OUTPUT FILE (UPPER TERREBONNE MODEL)	750
APPENDIX K2 – SENSITIVITY SUMMARY TABLE, GRAPHS, INPUT AND OUTPUT FILE (LOWER TERREBONNE MODEL).....	850

LIST OF TABLES

Table 1. Point Source TMDL Summary, Subsegment 120301	v
Table 2. Total Maximum Daily Load for Upper and Lower Terrebonne (Sum of CBOD, NH ₃ -N, and SOD)	xiv
Table 3. Land Uses in Segment 120301	3
Table 4. Water Quality Numerical Criteria and Designated Uses	9
Table 5. Discharger Inventory for Subsegment 120301	10
Table 6. Bayou Terrebonne Projection Scenarios – Upper Terrebonne	34
Table 7. Bayou Terrebonne Projection Scenarios – Lower Terrebonne	42
Table 8. Total Maximum Daily Load (Sum of UCBOD, UNBOD, and SOD)	46
Table 9. Summary of Calibration Model Sensitivity Analysis (Upper Terrebonne)	47
Table 10. Summary of Calibration Model Sensitivity Analysis (Lower Terrebonne)	48

LIST OF FIGURES

Figure 1. Vector Diagram of Bayou Terrebonne (Upper Terrebonne)	4
Figure 2. Vector Diagram of Bayou Terrebonne (Lower Terrebonne)	5
Figure 3. Map of the Study Area Near Thibodaux, LA	6
Figure 4. Map of the Central Reaches of the Study Area	7
Figure 5. Map of the Study Area Near Houma, LA	8
Figure 6. Bayou Terrebonne Calibration Model Dissolved Oxygen versus River Kilometer (Subsegment 120301, Upper Terrebonne)	26
Figure 7. Bayou Terrebonne (Upper Terrebonne) - Summer Projection, 80% Removal of the Total NPS Loads vs. a DO Standard of 5.0 mg/L - Schriever School with limits of 30 mg/L CBOD ₅ / 15 mg/L NH ₃ -N / 2 mg/L DO	32
Figure 8. Bayou Terrebonne (Upper Terrebonne) - Winter Projection, 80% Removal of the Total NPS Loads vs. a DO Standard of 5.0 mg/L - Schriever School with limits of 30 mg/L CBOD ₅ / 15 mg/L NH ₃ -N / 2 mg/L DO	33
Figure 9. Bayou Terrebonne Calibration Model Dissolved Oxygen versus River Kilometer (Bayou Terrebonne, Subsegment 120301, Lower Terrebonne)	39
Figure 10. Bayou Terrebonne, Lower Terrebonne - Summer Projection, No Point Source Loads, 70% Removal of the Total NPS Loads vs. a DO Standard of 5.0 mg/L	43
Figure 11. Bayou Terrebonne, Lower Terrebonne – Winter Projection, No Point Source Loads, 70% Removal of the Total NPS Loads vs. a DO Standard of 5.0 mg/L	44

1. Introduction

Bayou Terrebonne was listed on the 2002 Consent Decree. The subsegment was found to be "not supporting" its designated uses of Primary Contact Recreation and Fish and Wildlife Propagation. Bayou Terrebonne was subsequently scheduled for TMDL development with other listed waters in the Terrebonne Basin. The suspected causes were organic enrichment/low DO, pathogen indicators, mercury, oil and grease, pesticides, nutrients, noxious aquatic plants, and exotic species. The suspected sources were municipal point source discharges, decentralized on-site treatment systems, sanitary sewer overflows, package plants or other small permitted dischargers. It was "fully supporting" its designated use of Secondary Contact Recreation. This TMDL addresses the impairment of low dissolved oxygen and nutrients.

2. Study Area Description

2.1 General Information

"Bayou Terrebonne exists in the Terrebonne Basin. The Terrebonne Basin covers an area extending approximately 120 miles from the Mississippi River on the north to the Gulf of Mexico on the south. It varies in width from 18 miles to 70 miles. This basin is bounded on the west by the Atchafalaya River Basin and on the east by the Mississippi River and Bayou Lafourche. The topography of the entire basin is lowland, and all the land is subject to flooding except the natural levees along major waterways. The coastal portion of the basin is prone to tidal flooding and consists of marshes ranging from fresh to saline." (LDEQ, 1996)

The area is known for having a network of man-made canals and waterways as well as waterbodies that have been modified to the extent that they no longer function as natural waterways. The primary purpose of many of these waterways is to provide drainage for rainfall events. This is true for the portion of Bayou Terrebonne in Subsegment 120301.

The slope of the entire basin is primarily nonexistent and the only sources of flow are local dischargers, rainfall events, and local pumping operations. At one time Bayou Terrebonne was a distributary of Bayou Lafourche, with the divergence being in Thibodaux, Louisiana. The remnants of this divergence can still be seen. However, evidence indicates that Bayou Terrebonne has been completely and irreversibly cut off from Bayou Lafourche. Where Bayou Terrebonne once existed as an open channel waterway in Thibodaux, it now exists as a box culvert underneath the median of Canal Boulevard. The channel has been separated from the current headwaters of Bayou Terrebonne near an abandoned railroad right-of-way on the south side of Thibodaux. Everything north of this railroad drains to Bayou Lafourche. The modeled reaches of Bayou Terrebonne begins slightly south of the abandoned railroad right-of-way.

The upstream reaches of the modeled waterbody are bordered by rural and agricultural land areas. The bayou serves as a drainage canal and receives the local stormwater runoff during rainfall events.

The middle reaches of the study area are bordered by a relatively narrow strip of vegetated urban land area. Various types of wetlands, marshes, and agricultural land areas exist farther away from the bayou.

North of Houma, the local landuse transitions to larger and more densely populated urban areas. This land use remains consistent through the remainder of the study area, which ends at the confluence with the Intracoastal Waterway (ICWW).

Three weirs exist within the boundaries of the study area. Weir # 1 is located near North Terrebonne Road. Weir # 2 exists near Coteau Road. Weir # 3 is located near Mall Drive immediately north of the confluence with Bayou Cane.

Two tributaries connected to Bayou Terrebonne at one time. These include Bayou Cane and St. Louis Canal. Bayou Cane is controlled by a pump station located approximately 100 yards from the confluence with Bayou Terrebonne. These pumps are used to control flooding and they are placed into operation only during significant rainfall events. The pumps were not in operation during the survey and would not be in operation during projection conditions. St. Louis Canal has been cut off from Bayou Terrebonne and it connects to the Intracoastal Waterway through a pump station located near New Orleans Boulevard.

Paraphrasing from Kniffen, the watershed lies along the borderline of two natural regions of Louisiana. These are the Mississippi Floodplain and Coastal Marsh areas. The Mississippi Floodplain region includes features such as passes, natural levees, and swamp. The passes are areas of low elevation and relief, maximum growing seasons, batture vegetation, mudlumps and bars, distributary drainage, and inter levee lakes. The natural levees have moderate relief and slope, second-bottom and batture vegetation, distributary and crevasse channels, cutoff lakes, and lighter bottom soils. The swamps have little to no relief, standing water, braided channels, and bluff lakes. The swamp areas typically have first bottom forests and heavy bottom soils. Spanish moss is usually abundant.

The Coastal Marsh region includes fresh and salt marshes. The marshes have low elevation and relief, long growing seasons, and abundant rainfall (often provided by hurricanes). The soils are typically muck and peat and there are many round and lagoonal lakes.

The soils of the area consist of Mississippi River alluvial soils and coastal marsh soil.

The vegetation of the area includes bottomland hardwoods such as sycamore and water oaks, cypress and tupelo gum forests, and marsh vegetation such as three-corner grass, cattail, and roseau cane.

Historically, the area has an average annual precipitation in excess of 60 inches and the growing season is typically around 290 days per year. (Kniffen, 1988)

The amounts of acreage taken up by the individual forms of local land usage within the subsegment are shown in Table 3. The data was developed from GAP satellite data. Marshes and wetlands dominate the local surface areas. Wetlands (all types) and agriculture account for approximately 47.11 and 21.31 percent of the local land usage, respectively. Open water accounts for approximately 6.85 percent of the local land usage.

Table 3. Land Uses in Segment 120301

SUBSEGMENT 120301 - LANDUSE SUMMARY		
LANDUSE	ACRES	PERCENT
Wetland Forest Deciduous	9652.59	27.35
Agriculture/Cropland/Grassland	7522.94	21.31
Vegetated Urban	7468.45	21.16
Fresh Marsh	4308.00	12.20
Wetland S/S Deciduous	2667.40	7.56
Water	2418.76	6.85
Non-Vegetated Urban	809.07	2.29
Upland S/S Mixed	182.59	0.52
Upland Forest Deciduous	159.23	0.45
Upland Forest Mixed	106.53	0.30
Upland Barren	3.34	0.01

Figures 1 and 2 provide vector diagrams for the two models used to simulate subsegment 120301. These diagrams show the layout of the reaches that were used to model Bayou Terrebonne. They also show the locations and river kilometers of survey sites and the single permitted discharger. The numbers of elements within each model reach are shown along the right side of the vector diagram.

Figures 3 through 5 provide vicinity maps of the study area.

2.2 Water Quality Standards

The current dissolved oxygen criterion for Subsegment 120301 is 5.0 mg/L for all seasons. The Water Quality criteria and designated uses for the subsegment are shown in Table 4.

A Use Attainability Analysis (UAA) is being developed for the Barataria and Terrebonne Basins. It was not completed at the time of this report.

2.3 Wastewater Discharges

Discharger inventory research identified 80 permitted facilities and 2 municipalities in Subsegment 120301. However, 53 of the facilities discharge to canals or bayous that do not flow into Bayou Terrebonne. These facilities were not included in the stream model or the TMDL.

Twenty-six facilities discharge to a ditch, pipe, or storm drain leading to Bayou Terrebonne. However, they are too small or too far away to impact the targeted waterbody. These dischargers are accounted for as nonpoint loading through the process of calibration. They fall within one of several state or regional policies that govern permit limitations. Current permit information was reviewed for all of these facilities.

Figure 1. Vector Diagram of Bayou Terrebonne (Upper Terrebonne)

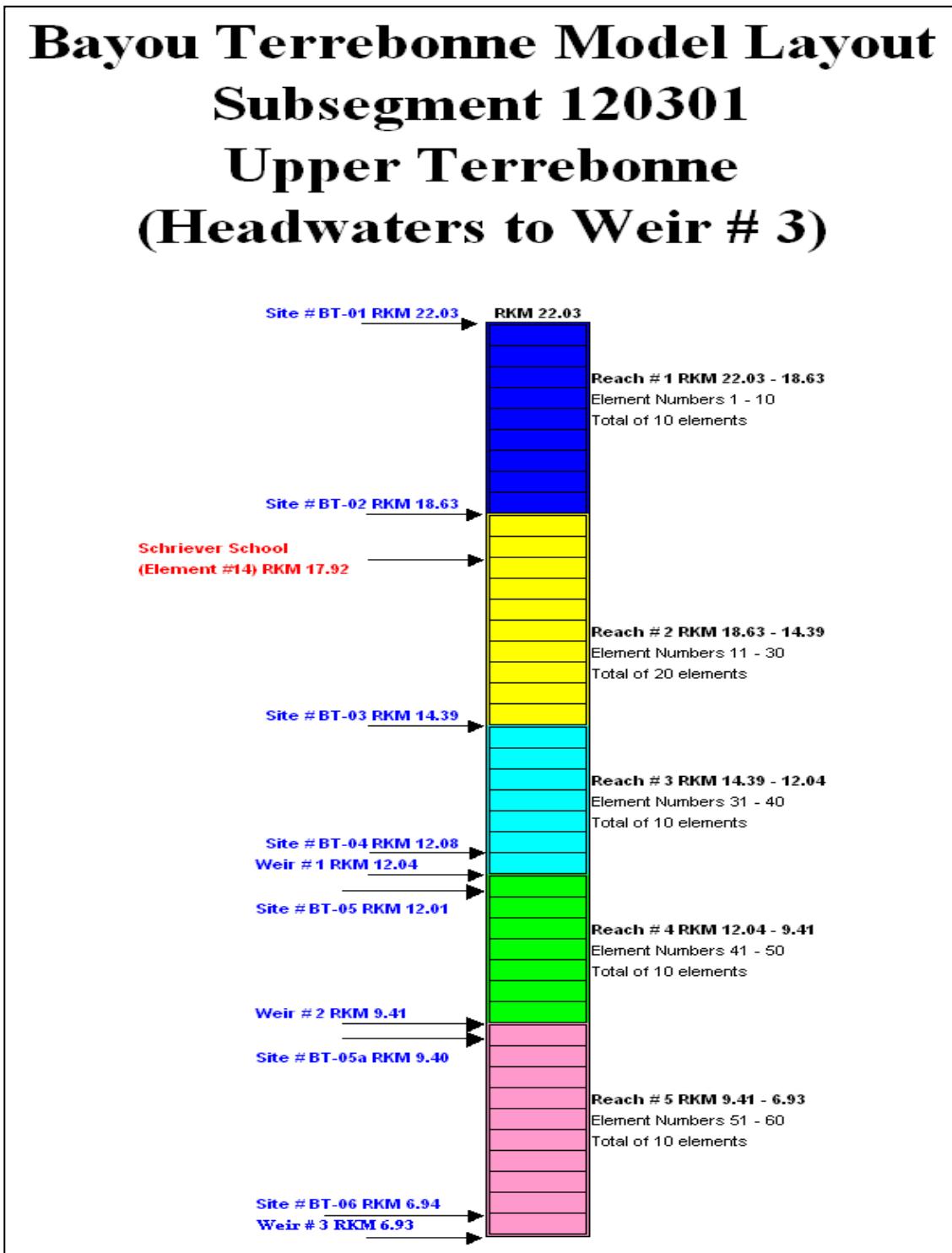


Figure 2. Vector Diagram of Bayou Terrebonne (Lower Terrebonne)

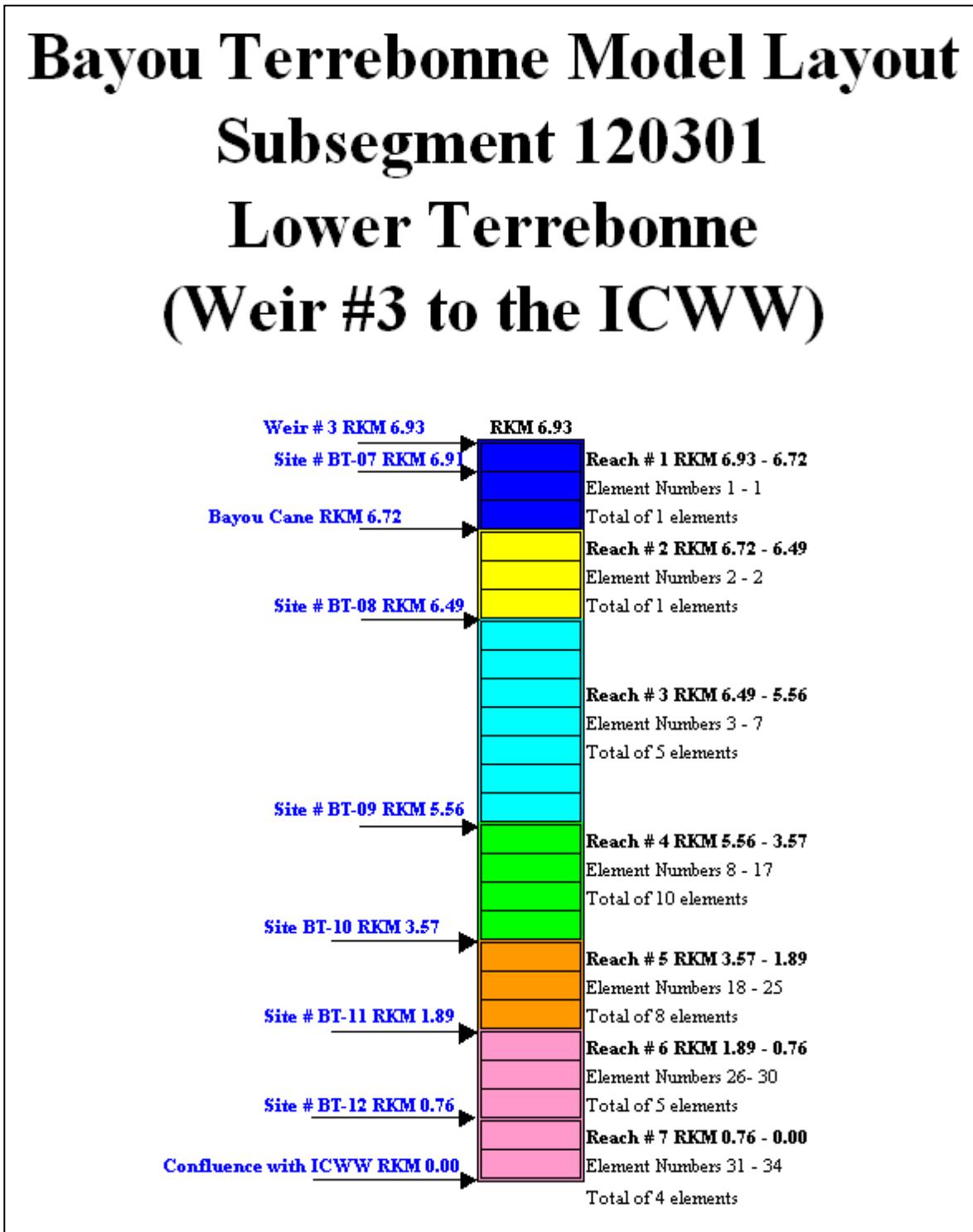


Figure 3. Map of the Study Area Near Thibodaux, LA

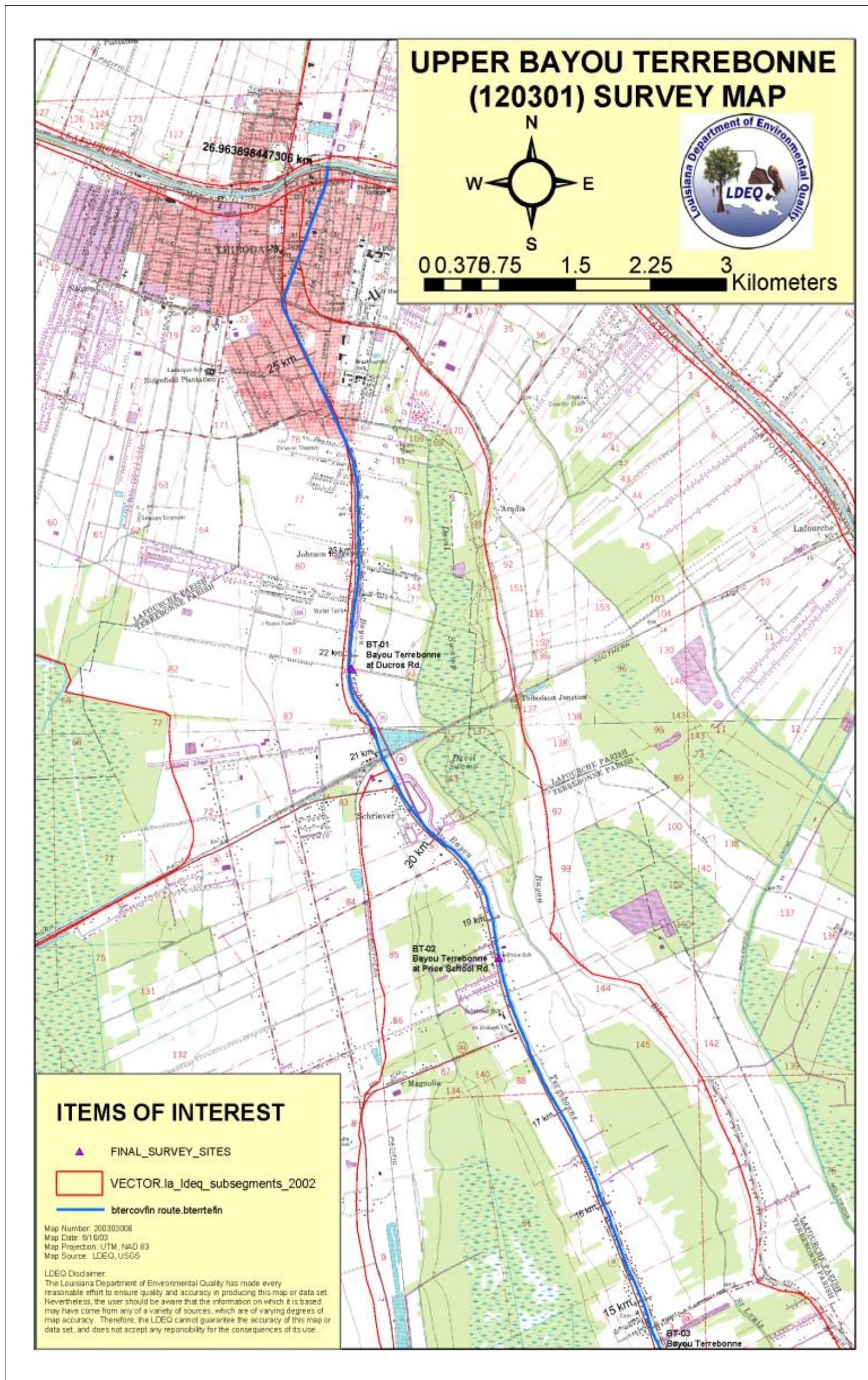
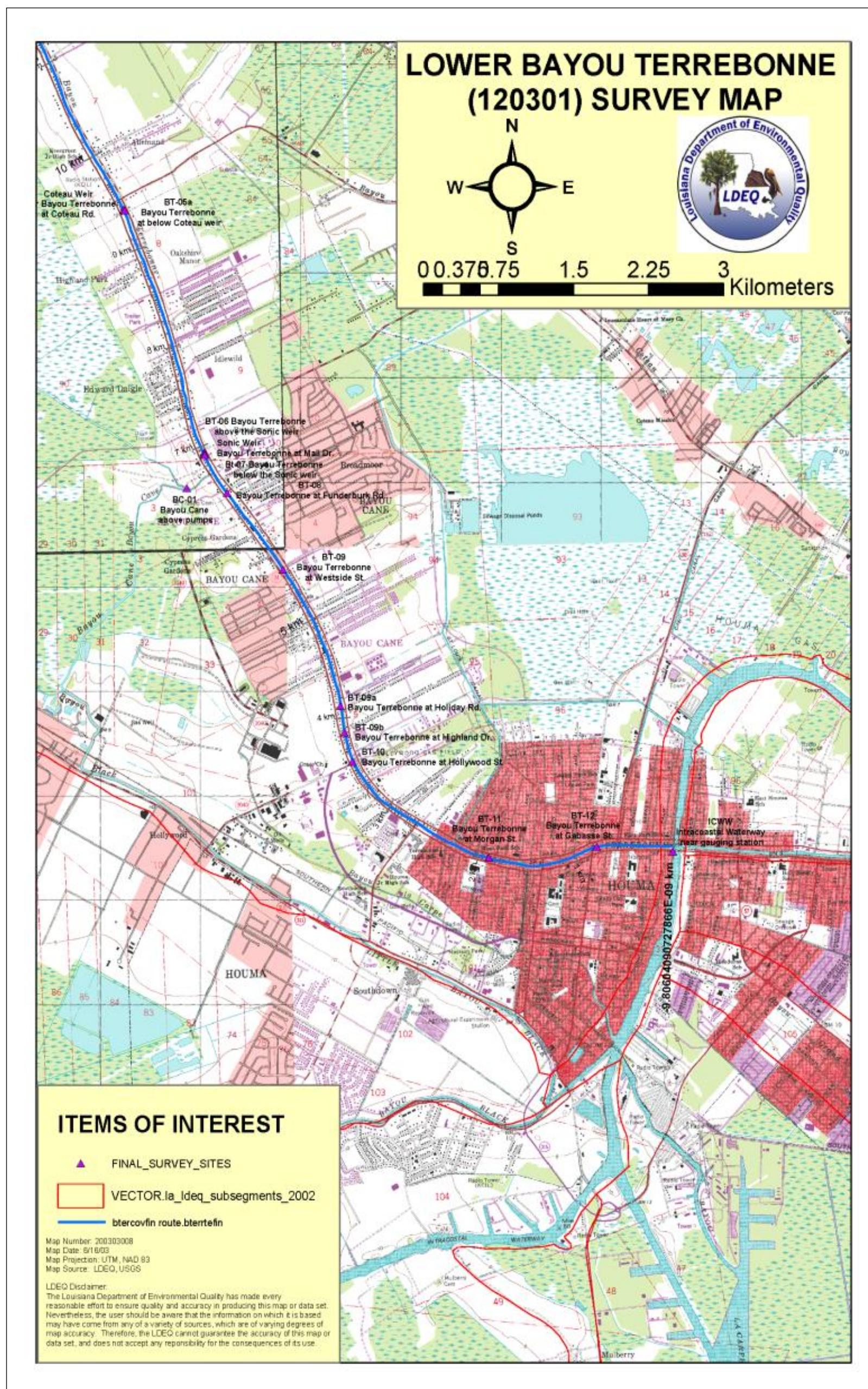


Figure 4. Map of the Central Reaches of the Study Area



Figure 5. Map of the Study Area Near Houma, LA



Only one facility, the Schriever School, was considered to have a possible impact to Bayou Terrebonne due to its expected discharge flow and the location of its outfall. Therefore, it was included in the projection models. The survey records indicate that none of the facilities were discharging during the survey. A summary of the facilities is provided in Table 5.

Facilities not specifically included in the model as wasteloads are believed to be accounted for in the nonpoint loading and sediment oxygen demand (SOD).

Table 4. Water Quality Numerical Criteria and Designated Uses

Subsegment	120605
Stream Description	Bayou Terrebonne – Thibodaux to boundary between segments 1203 and 1206, at Houma
Designated Uses	A, B, C
Criteria:	
C1	540
SO ₄	90
DO	5.0 mg/L
pH	6.0 – 8.5
BAC ¹	400 /100 mL
TEMP	32 °C
TDS	1,350

USES: A – primary contact recreation; B - secondary contact recreation; C – propagation of fish and wildlife; D – drinking water supply; E – oyster propagation; F – agriculture; G – outstanding natural resource water; L – limited aquatic life and wildlife use.

Note 1 – No more than 25% of samples collected on a monthly or near monthly basis shall exceed 400 colonies/100mL for the recreational period of May 1 through October 31; No more than 25% of samples collected on a monthly or near monthly basis shall exceed 2,000 colonies/100mL for the nonrecreational period of November 1 through April 30.

2.4 Water Quality Conditions/Assessment

The designated uses of Subsegment 120301 include Primary Contact Recreation, Secondary Contact Recreation, and Fish and Wildlife Propagation. According to LDEQ's waterbody assessment, Subsegment 120301 does not support Primary Contact Recreation or Fish and Wildlife Propagation.

The listed causes of impairment include nitrate/nitrite, nonnative aquatic plants, low dissolved oxygen, total fecal coliform, and total phosphorus, according to the 2004 Water Quality Integrated Report.

Bayou Terrebonne was listed on the 2002 Consent Decree. The suspected causes were organic enrichment/low DO, pathogen indicators, mercury, oil and grease, pesticides, nutrients, noxious aquatic plants, and exotic species.

Table 5. Discharger Inventory for Subsegment 120301

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Schriever School	19162/ LAG540733	10,650	30		25,000	6250	30		Included in the model
City of Thibodaux Municipal Septic Storm Sewer System (MS4)*	108472/ LAR041011								Not included in the model-stormwater
Terrebonne Parish Municipal Separate Storm Sewer System (MS4)*	108407/ LAR041023								Not included in the model-stormwater
Andrew Price School*	51973/ LAG531000	3,880	45 (weekly average)						Not included in the model-too small
Partek Laboratories*	42776/ LAG530409	220	45 (weekly average)						Not included in the model-too small, too far from Bayou Terrebonne
Chevron Jubilee 4606*	41775/ LAG750205	360	45 (weekly average)						Not included in the model-too small
North Branch of the Terrebonne Parish Library*	38494/ LAG531241	1,000	45 (weekly average)						Not included in the model-too small
United Parcel Service, Houma Center*	83322/ LA0096547	480	45 (weekly average)						Not included in the model-too small
Jubilee Exxon 4608*	41774/ LAG750289	360	45 (weekly average)						Not included in the model-too small

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Plug and Abondonment Division*	27338/ LA0106291	200	45 (weekly average)						Not included in the model-too small
Burger King Restaurant*	43458/ LAG530804	3,200	30						Not included in the model-too small
Best Western Houma Inn*	33840/ LAG540951	8,300	30						Not included in the model-too small
Colonel's Truck Stop and Casino*	95797/ LAG541061	10,000	30						Not included in the model-too small
McDonald's*	42440/ LAG530363	2,300	45 (weekly average)						Not included in the model-too small
Big Boy Seafood*	12197/ LA119814	980	45 mg/L (weekly average)						Not included in the model-too small
A-1 Used Cars*	11737/ LAG470200	80	45 mg/L (weekly average)						Not included in the model-too small
McDonalds #12185*	42440/ LAG530363	2,600	45 mg/L (weekly average)						Not included in the model-too small
Burger King #11942*	43458/ LAG530804	3,200	45 mg/L (weekly average)						Not included in the model-too small
Bayou Cane Hall, LLC*	98444/ LAG531400	985	45 mg/L (weekly average)						Not included in the model-too small

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Gray Self Serve*	77717/ LAG531410	2,120	45 mg/L (weekly average)						Not included in the model-too small
Domino's Pizza Store #5243*	125829/ LAG531744	100	45 mg/L (weekly average)						Not included in the model-too small
Bayou Cane Sport's Bar*	128480/ LAG531801	600	45 mg/L (weekly average)						Not included in the model-too small
Andrew Price Recreation Center*	129740/ LAG531865	750	45 mg/L (weekly average)						Not included in the model-too small
BNSF Railway Co- Schriever Yard STP*	137313/ LAG532018	140	45 mg/L (weekly average)						Not included in the model-too small
Gray Truck Stop and Casino*	137529/ LAG541411	7,790	30 mg/L (monthly average)						Not included in the model-too small
Major Suds Car Wash*	139326/ LAG75055	500	45 mg/L (weekly average)						Not included in the model-too small
Excell Crane and Hydraulics, Inc.*	23738/ LAG480230	100	45 mg/L (weekly average)						Not included in the model-too small
Schlumberger Facility*	2184/ LAG480002	50	45 mg/L (weekly average)						Not included in the model-too small
UPS Houma Center*	83322/ LAG480327	480	45 mg/L (weekly average)						Not included in the model-too small

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Paul's Auto Salvage	25789/ LAG531899	160	45 mg/L (weekly average)						Not included in model- discharges to St. Louis Bayou
Willowdale Subdiviaion	43627/ LAG560015	37,200	20						Not included in model- discharges to St. Louis Bayou
Country Boy Trailer Park	19835/ LAG540243	<10,000	30						Not included in model- discharges to Cypress Co. Canal to St. Louis Banal to ICWW
Fairlane Bayou	41486/ LAG540029	18,400	30						Not included in model- discharges to Ouiski Bayou to Bayou Cane
Schlumberger Well Services, Houma Operations	19631/ LA0081094	2,000	45 mg/L (weekly average)						Outfall 002-Not included in model-discharges to St. Louis Canal or Bayou Blue
		4,500	45 mg/L (weekly average)						Outfall 006-Not included in model-discharges to St. Louis Canal or Bayou Blue
Schlumberger Well Services, Houme Open Hole	22427/ LA0084921	275	45 mg/L (weekly average)						Not included in model- discharges to Caro Canal to Houma Navigation Canal
North Treatment Plant-Terrebonne Parish Consolidated Gov't.	19176/ LA0040207	6,730,000	10						Not included in model- discharges to St. Louis Canal
Caldwell Middle School-Terrebonne Parish School Board	19172/ LAG540722	12,020	30						Not included in model- discharges to Ouiski Bayou to Bayou Black

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Coteau Bayou Blue Elementary School-Terrebonne Parish School Board	19171/ LAG540723	14,000	30						Not included in model-discharges to Bayou Little Coteau to St. Louis Bayou
Eureka Heights Subdivision	41432/ LAG570018	39,360	10						Not included in model-discharges to St. Louis Canal
Lumen Christ Retreat Center	18944/ LAG540272	870	30						Not included in model-discharges to Ouiski Bayou to Bayou Black
Suburban Estates Subdivision	43626/ LAG560240	57,600	10						Not included in model-discharges to St. Louis Bayou
Schreiver Water Plant & STP	27838/ LAG530566	327	45 mg/L (weekly average)						Not included in model-discharges to Bayou Blue or St. Louis Canal
Tara Subdivision	18673/ LAG570131	67,440	10						Not included in model-discharges to Little Bayou Coteau
Danny and Clyde Food Store # 23	40772/ LAG531133	500	45 mg/L (weekly average)						Not included in model-discharges to Little Bayou Black
Capri Court	19887/ LAG540221	<25,000	30						Not included in the model-discharges to St. Louis Canal
Computalog Wireless Services, Inc.	12646/ LAG480406	151	45 mg/L (weekly average)						Not included in model-discharges to Hollywood Canal or Bayou Blue
Johnson Ridge Community Improvements	43509/ LAG560136	45,000	20						Not included in model-discharges to St. Louis Canal

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Mobil Estates Subdivision	42540/ LAG570214	74,800	10						Not included in model-discharges to St. Louis Canal
South Electric Cooperative Assn.	9181/ LAG750272	600	45 mg/L (weekly average)						Not included in model-discharges to St. Louis Canal
Coteau Trailer Park	41101/ LAG540238	<25,000	30						Not included in model-discharges to Lake Coteau to Lake Houma
Little Bayou Black Soc J3307	40759/ LAG530991	480	45 mg/L (weekly average)						Not included in model-discharges to Little Bayou Black
West Building Materials	43928/ LAG530909	100	45 mg/L (weekly average)						Not included in model-discharges to Little Bayou Black
Matherne Development	33902/ LA0113255	114,200	10						Not included in model-discharges to Bayou Cane
EXXON Jubilee #624	82058/ LAG540958	<10,000	30						Not included in model-discharges to Little Bayou Coteau
Chateau Audobon	87935/ LAG531130	<2,500	45 mg/L (weekly average)						Not included in model-discharges to St. Louis Canal
Levystown STP-Terrebonne Parish Consolidated Gov't	43510/ LAG560135	30,000	20						Not included in model-discharges to Ouiski Bayou to Little Bayou Black
Lake Houmas Inn	42237/ LAG540466	6,500	30						Not included in the model-discharges to St. Louis Canal to ICWW

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Sub District 02 Headquarters	18410/ LAG530166	1,000	45 mg/L (weekly average)						Not included in the model-discharges to a ditch to Bayou Cane
Frank's Casing Crew and Rental Tools, Inc.	41566/ LAG480590	80	45 mg/L (weekly average)						Not included in the model-discharges to a ditch to ICWW
Circle K-Quality Food Store, Inc	75400/ LAG531619	910	45 mg/L (weekly average)						Not included in the model-discharges to ICWW
Eager Eagle Productions, LLC	141935/ LAG532104	100	45 mg/L (weekly average)						Not included in the model-discharges to a ditch to Bayou Cane to Bayou Black
Kenneth Rembert Mobile Home Park	42035/ LAG540823	12,800	30						Not included in the model-discharges to a ditch to ICWW
Olsen Securities Corp.	42718/ LAG540847	12,000	30						Not included in the model-discharges to a ditch to St. Louis Bayou
Coteau 90 Exxon and Casino	68924/ LAG541041	<17,000	30						Not included in the model-discharges to a ditch Caro Canal to St. Louis Bayou to ICWW
Bayou Blue Mobile Home Court WWTP	121640/ LAG541228	20,000	30						Not included in the model-discharges to St. Louis Bayou to ICWW
Ferantello Estates WWTP	123218/ LAG570261	27,600	10						Not included in the model-discharges to local drainage to Ouiski Bayou

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Quiet Oaks Subdivision WWTp	128702/ LAG570354	36,800	10						Not included in the model-discharges to St. Louis Bayou to ICWW
The Landing on Bayou Cane	106649/ LAG570258	69,280	10						Not included in the model-discharges to Bayou Cane
Jollie Oaks Subdivision*	99377/ LAG541113	20,000	30 mg/L (monthly average)						Not included in the model-discharges to St. Louis Bayou
Baker Atlas	19378/ LAG480081	200	45 mg/L (weekly average)						Not included in the model-discharges to St. Louis Bayou
Security Boulevard Rentals, LLC	119160/ LAG480380	760	45 mg/L (weekly average)						Not included in the model-discharges to Little Bayou Black
Southern Technology and Services, Inc.	29921/ LAG480390	1,500	45 mg/L (weekly average)						Not included in the model-discharges to Bayou Little Coteau
Wood Group Logging Services	12646/ LAG480406	151	45 mg/L (weekly average)						Not included in the model-discharges to Hollywood Canal or Bayou Blue
Weatherford US, LP	12878/ LAG480486	500	45 mg/L (weekly average)						Not included in the model-discharges to Black Bayou
T3 Energy Services	11155/ LAG530142	880 (outfall 001)	45 mg/L (weekly average)						Not included in the model-discharges to Little Black Bayou
		298 (outfall 002)							
		182 (outfall 003)							

FACILITY	AI Number/ LPDES Number	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		TMDL FLOW	MOS FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS (unless otherwise indicated)		MODELING COMMENTS
			GPD	BOD5, mg/L			GPD	BOD5, mg/L	
Geri Leblanc Pontiac Buick GMC Truck	30020/ LAG470143								Not included in the model; connected to the City of Thibodaux STP
Trapp Chevrolet Oldsmobile Cadillac	10182/ LAG470041								Not included in the model-connected to parish sewage system
Robichaux Ford	91037/ LAG470117								Not included in the model-connected to the City of Thibodaux STP
Acadia Woods Subdivision	38187/ LAG540083								Not included in model- connected to the City of Thibodaux STP
Eschete Trailer Park	105179								Not included in the model-discharges to parish sewage
Baywash	41208/ LAG750220								Not included in the model-discharges to parish sewage
Enterprise Rent-a-Car	41392/ LAG750229								Not included in the model-no sanitary discharge

* Note: While this source is not specifically modeled, its residual impact is accounted for in the nonpoint source load component of the model, and that the permit conditions should continue in effect.

2.5 Prior Studies

There are no prior studies of Bayou Terrebonne. As of the publication date of this report, a UAA is being developed for the Barataria and Terrebonne Basins.

3. Model Documentation (Upper Terrebonne)

3.1 Program Description

“Simulation models are used extensively in water quality planning and pollution control. Models are applied to answer a variety of questions, support watershed planning and analysis and develop total maximum daily loads (TMDLs). Receiving water models simulate the movement and transformation of pollutants through lakes, streams, rivers, estuaries, or near shore ocean areas. Receiving water models are used to examine the interactions between loadings and response, evaluate loading capacities (LCs), and test various loading scenarios. A fundamental concept for the analysis of receiving waterbody response to point and nonpoint source inputs is the principle of mass balance (or continuity). Receiving water models typically develop a mass balance for one or more constituents, taking into account three factors: transport through the system, reactions within the system, and inputs into the system.” (EPA841-b-97-006, pp. 1-30)

The model used for this TMDL was LA-QUAL, a steady-state one-dimensional water quality model. LA-QUAL history dates back to the QUAL-I model developed by the Texas Water Development Board with Frank D. Masch & Associates in 1970 and 1971. William A. White wrote the original code.

In June, 1972, the United States Environmental Protection Agency awarded Water Resources Engineers, Inc. (now Camp Dresser & McKee) a contract to modify QUAL-I for application to the Chattahoochee-Flint River, the Upper Mississippi River, the Iowa-Cedar River, and the Santee River. The modified version of QUAL-I was known as QUAL-II.

Over the next three years, several versions of the model evolved in response to specific client needs. In March, 1976, the Southeast Michigan Council of Governments (SEMCOG) contracted with Water Resources Engineers, Inc. to make further modifications and to combine the best features of the existing versions of QUAL-II into a single model. That became known as the QUAL-II/ SEMCOG version.

Between 1978 and 1984, Bruce L. Wiland with the Texas Department of Water Resources modified QUAL-II for application to the Houston Ship Channel estuarine system. Numerous modifications were made to enable modeling this very large and complex system including the addition of tidal dispersion, lower boundary conditions, nitrification inhibition, sensitivity analysis capability, branching tributaries, and various input/output changes. This model became known as QUAL-TX and was subsequently applied to streams throughout the State of Texas.

In 1999, the Louisiana Department of Environmental Quality and Wiland Consulting, Inc. developed LA-QUAL based on QUAL-TX Version 3.4. The program was converted from a DOS-based program to a Windows-based program with a graphical interface and enhanced graphic output. Other program modifications specific to the needs of Louisiana and the Louisiana DEQ were also made. LA-QUAL

is a user-oriented model and is intended to provide the basis for evaluating total maximum daily loads in the State of Louisiana.

The development of a TMDL for dissolved oxygen generally occurs in 3 stages. Stage 1 encompasses the data collection activities. These activities may include gathering such information as stream cross-sections, stream flow, stream water chemistry, stream temperature and dissolved oxygen and various locations on the stream, location of the stream centerline and the boundaries of the watershed which drains into the stream, and other physical and chemical factors which are associated with the stream. Additional data gathering activities include gathering all available information on each facility which discharges pollutants in to the stream, gathering all available stream water quality chemistry and flow data from other agencies and groups, gathering population statistics for the watershed to assist in developing projections of future loadings to the water body, land use and crop rotation data where available, and any other information which may have some bearing on the quality of the waters within the watershed. During Stage 1, any data available from reference or least impacted streams, which can be used to gauge the relative health of the watershed is also collected.

Stage 2 involves organizing all of this data into one or more useable forms from which the input data required by the model can be obtained or derived. Water quality samples, field measurements, and historical data must be analyzed and statistically evaluated in order to determine a set of conditions that have actually been measured in the watershed. The findings are then input to the model. Best professional judgment is used to determine initial estimates for parameters which were not or could not be measured in the field. These estimated variables are adjusted in sequential runs of the model until the model reproduces the field conditions which were measured. In other words, the model produces a value of dissolved oxygen, temperature, or other parameter which matches the measured value within an acceptable margin of error at the locations along the stream where the measurements were actually made. When this happens, the model is said to be calibrated to the actual stream conditions. At this point, the model should confirm that there is an impairment and give some indications of the causes of the impairment. If a second set of measurements is available for slightly different conditions, the calibrated model is run with these conditions to see if the calibration holds for both sets of data. When this happens, the model is said to be verified.

Stage 3 covers the projection modeling which results in the TMDL. The critical conditions of flow and temperature are determined for the waterbody and the maximum pollutant discharge conditions from the point sources are determined. These conditions are then substituted into the model along with any related condition changes that are required to perform worst case scenario predictions. At this point, the loadings from the point and nonpoint sources (increased by an acceptable margin of safety) are run at various levels and distributions until the model output shows that dissolved oxygen criteria are achieved. It is critical that a balanced distribution of the point and nonpoint source loads be made in order to predict any success in future achievement of water quality standards. At the end of Stage 3, a TMDL is produced which shows the point source permit limits and the amount of reduction in man-made nonpoint source pollution which must be achieved to attain water quality standards. The man-made portion of the NPS pollution is estimated from the difference between the calibration loads and the loads observed on reference or least impacted streams.

3.2 Calibration Input Data Documentation

Data collected during an intensive survey conducted on August 6, 2003, was used to establish the input for the model calibration and is presented in Appendix H.

The flow in each reach, headwater, and unmodeled tributary was determined based on the survey discharge measurements. The impacts of any unpermitted facilities were accounted for by nonpoint loading in the model.

Field and laboratory water quality data were entered in a spreadsheet for ease of analysis. The Louisiana GSBOD program was applied to the BOD data in a separate spreadsheet and values were computed for each sample taken of ultimate CBOD, CBOD decay rate, CBOD Lag time, ultimate NBOD, NBOD decay rate, NBOD Lag time. This data was the primary source for the model input data for initial conditions; decay rates; headwater temperature CBOD, NBOD, and DO and calibration data.

3.2.1 Model Schematics and Maps

Vector diagrams of the modeled area are presented in Figures 1 and 2. The vector diagrams show the locations of survey stations, the reach/element design, and the locations of the modeled facilities. An ARCVIEW map of the stream and subsegment showing river kilometers, survey stations, drainage area boundaries and other points of interest are also included in Appendix J. A landuse map is also included in Appendix J.

3.2.2 Model Options, Data Type 2

Six constituents were modeled during the calibration process. These were chlorides, conductivity, dissolved oxygen, carbonaceous biochemical oxygen demand (fast and slow decaying), and nitrogenous biochemical oxygen demand. Algae was not considered to be a significant problem in this watershed since the sampling results showed relatively low concentration levels of chlorophyll *a*. The continuous monitors did show the typical diurnal variation in the concentration of dissolved oxygen. Chlorophyll *a* and macrophytes were not simulated. However, the impacts of chlorophyll *a* and macrophytes were simulated through the use of effective BOD and reduced reaeration values. The calibration procedures are explained in Section 3.3.

3.2.3 Program Constants, Data Type 3

Due to the weirs on Bayou Terrebonne, the tide height was set to “0.0” and the ocean exchange ratio was set to “0”. Effective BOD due to algae was set to 0.01.

3.2.3 Temperature Correction of Kinetics, Data Type 4

The temperature values computed are used to correct the rate coefficients in the source/sink terms for the other water quality variables. These coefficients are input at 20 °C and are then corrected to temperature using the following equation:

$$X_T = X_{20} * \Theta^{(T-20)}$$

Where:

X_T = the value of the coefficient at the local temperature T in degrees Celsius

X_{20} = the value of the coefficient at the standard temperature at 20 degrees Celsius

Theta = an empirical constant for each reaction coefficient

In the absence of specified values for data type 4, the model uses default values. A complete listing of these values can be found in the LA-QUAL for Windows User's Manual (LDEQ, 2003).

3.2.4 Reach Identification Data, Data Type 8

The headwaters of Bayou Terrebonne are located south of Thibodeaux. The bayou runs through sparsely populated agricultural areas until it reaches the outer limits of Houma. Generally, there is no advective flow in these reaches except after rain events, during which the primary function of the bayou is to convey water draining from nearby ditches. For much of the time, these reaches of the bayou are stagnant with minimal depth.

Bayou Terrebonne runs through the heart of Houma and intersects the Intracoastal Waterway. There are no waterbodies with a free flowing connection to Bayou Terrebonne. Three weirs exist along the modeled reaches of Bayou Terrebonne. These weirs serve to retain water during periods of low flow. They also cause the bayou to retain some of the pollutants that will settle out of the water column upstream of the weirs.

The southernmost weir (Weir #3) is located near Mall Drive. North of this weir, Bayou Terrebonne is a stagnant waterbody with minimal sources of advective flow. Portions of the waterbody may have been channelized. The riparian vegetation has been removed from most of the waterbody.

South of the weir #3, Bayou Terrebonne is heavily influenced from the tides emanating from the Gulf of Mexico and traversing northward through Bayou Terrebonne, the Intracoastal Waterway, and other associated waterbodies. This section of the waterbody is heavily populated and channelized. Most of the banks are reinforced with retaining walls and stormwater drains carry the effluent from some of the local dischargers to the mainstem of the waterbody.

Due to the extreme differences in the waterbody north and south of weir #3, Bayou Terrebonne was simulated with two calibrated models.

Five reaches were used to simulate the Bayou Terrebonne north of weir #3 (Upper Terrebonne).

None of the permitted facilities were noted to be discharging during the survey. Therefore no wasteloads were simulated in the calibration model.

3.2.5 Advective Hydraulic Coefficients, Data Type 9

For free flowing stream, LAQUAL can compute widths and depths for given flows using advective hydraulic characteristics (Modified Leopold Coefficients, Exponents, and Constants, Waldon, 2001.) Upper Terrebonne is not free flowing. Therefore the widths and depths were assumed to be constant at

low flow conditions. Whenever possible, reach widths and depth were based on values obtained at the southern end of each reach. For the remaining reaches, the width and depth values were estimated based on the values used in adjacent reaches.

3.2.6 Dispersive Hydraulic Coefficients, Data Type 10

Dispersion was not used in Upper Terrebonne due to the hydraulic conditions of the waterbody.

3.2.7 Initial Conditions, Data Type 11

The initial conditions are used to reduce the number of iterations required by the model. The values required for this model were temperature, dissolved oxygen, and chlorophyll *a* by reach. The input values were obtained from the survey station located at or near the southern end of each reach. The input data and sources are shown in Appendices B5.

3.2.8 Reaeration Rates, Data Type 12

Based on the measured depths and velocities of Bayou Terrebonne, the Louisiana Equation was the most applicable reaeration equation for the reaches north of weir # 3.

3.2.9 Sediment Oxygen Demand, Data Type 12

The SOD values were achieved through calibration. The values varied from 1.4 to 3.0 gm O₂/m²/day.

3.2.10 Carbonaceous BOD Decay and Settling Rates, Data Type 12

The decay rates used were based on the bottle rates from the survey. The values used for CBOD1 decay rates ranged from 0.23 to 0.31. The values used for CBOD2 decay rates ranged from 0.03 to 0.04. The settling rates were set to 0.05. The decay rates used for each reach are shown in Appendix H5 – BOD Calculations.

3.2.11 Nitrogenous BOD Decay and Settling Rates, Data Type 15

The decay rates used were based on the bottle rates from the survey. NBOD decay rates ranged from 0.06 to 0.17. The settling rates were set to 0.025. The decay rates used for each reach are shown in Appendix H5 – BOD Calculations.

3.2.12 Incremental Conditions, Data Types 16, 17, and 18

Incremental flow was used to calibrate to flows measured at the three weirs. The incremental flow in reaches 1-3 are attributed to various sources of bank flow and local drainage. The decrease in flow in reaches 4 and 5 are attributed to the weirs and evaporation. The water quality data was obtained from field and laboratory measurements for the survey sites located within the individual reaches.

3.2.13 Nonpoint Sources, Data Type 19

Nonpoint source loads that are not associated with a flow are input into this part of the model. These can be most easily understood as resuspended load from the bottom sediments and are modeled as SOD, CBOD and NBOD loads. These parameters were used as calibration values for Bayou Terrebonne.

Stormwater and the effluent of some local facilities is conveyed to the waterbody through local stormwater drains. These drains may convey the effluent of some local facilities also. Due to the minimal impact of these facilities, their impact is accounted for in the model using the nonpoint loading.

3.2.14 Headwaters, Data Types 20, 21, and 22

Data obtained at site BT-01 was utilized for the headwater data in the model north of weir # 3. The data and sources are presented in Appendix B.

3.2.15 Wasteloads, Data Types 23, 24, and 25

The Schriever School was not discharging during the survey and was not included in the calibration model.

Typically, any tributaries or distributaries that are not simulated, are included in the model as a boundary point in the Wasteloads section of the LAQUAL input file. However, no tributaries or distributaries were included in this model of Bayou Terrebonne.

Bayou Cane connects to Bayou Terrebonne immediately north of the weir #3. However, it is controlled by a pump station located approximately 100 meters from the confluence with Bayou Terrebonne. The pumps operate primarily during rainfall events. They were not in operation during the survey and Bayou Cane was not included in the calibration model. The pump stations are not expected to be in operation during the projected critical conditions. Therefore, Bayou Cane was not included in the summer or winter projections.

3.2.16 Lower Boundary Conditions, Data Type 27

The Ocean Exchange Ratio was set to “0”. Therefore any values in the Lower Boundary Conditions other than temperature would not affect the model.

3.2.17 Dam Data, Data Type 28

The dam functionality was utilized to simulate two of the three weirs in the on Bayou Terrebonne. The input values were obtained from measurements taken during the survey. The data is presented in Appendix H9.

Weir #3 served as a breaking point between the two models and was not simulated with the dam functionality of LAQUAL.

3.3 Calibration Model Discussion and Results

The calibration model input and output is presented in Appendix B. The overlay plotting option was used to determine if calibration had been achieved. A plot of the dissolved oxygen concentration versus river kilometer is presented in Figures 6.

During the reconnaissance and TMDL surveys, the waterbody was noted to be somewhat impacted by algae and aquatic vegetation. Some portions of the stream were lined with trees or shrubs while other areas were lined with buildings.

Upper Terrebonne is primarily a stagnant waterbody except during and after rainfall events. This portion of the waterbody is relatively shallow with some signs of algae and macrophytes. The reaches are void of tidal impacts from the Intracoastal Waterway.

Data from Site BT01 was used as the headwater data for the model of the upper reaches of Bayou Terrebonne. Flows were obtained at each of the three weirs. There were no tributaries or facilities discharging into Bayou Terrebonne at the time of the TMDL survey. Incremental flow was used to match the flow measurements obtained at each of the weirs. Water quality concentrations for the incremental flow was based on insitu and laboratory data obtained at the survey site located within the individual reaches.

Nonpoint and SOD loading was determined by calibration.

Adequate calibrations were achieved for DO, UCBOD1, UCBOD2, and UNBOD, considering the stagnant nature of the stream. The DO standard of 5 mg/L was not being met under the conditions in which the survey was conducted. The minimum DO for the model upstream of weir # 3 was 0.07 mg/l.

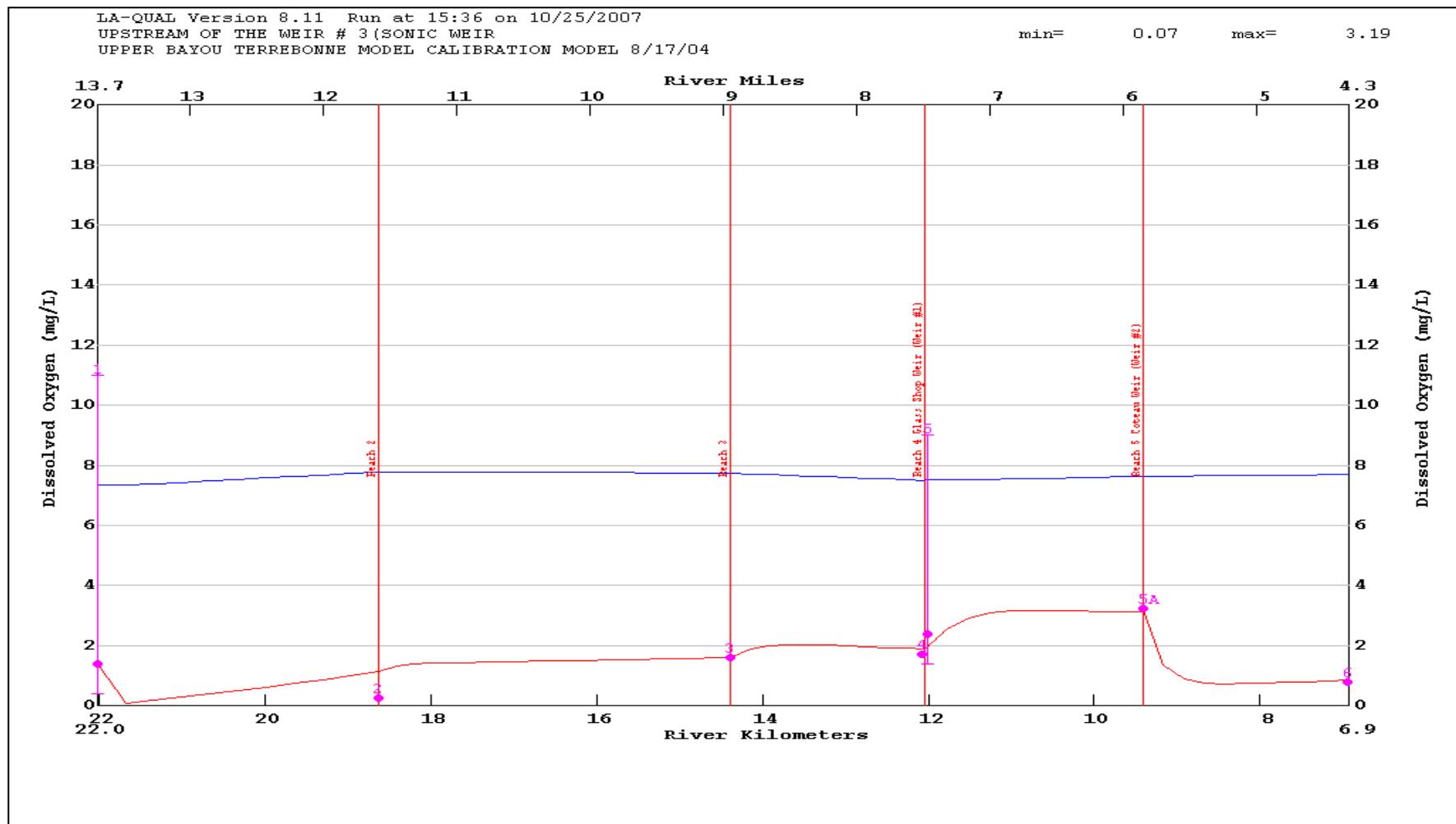
Calibrations to chlorides and conductivity were marginal at best, but considered adequate to support the small amount of hydraulic data available.

It should be noted that the primary function of Bayou Terrebonne in Subsegment 120301 is to serve as a drainage ditch for the local roads, agricultural, urban, and residential landuse. Upstream of weir #3 Bayou Terrebonne is shallow with extremely low velocity. The banks of the waterbody are periodically cleared of vegetation. These characteristics, along with the three weirs indicate that the waterbody has been altered to the extent that the existing DO standard of 5 mg/L will be practically impossible to achieve. An appropriate DO standard for Bayou Terrebonne should be established.

3.4 Water Quality Projections (Upper Terrebonne)

The calibration model indicated that the DO criterion was not being met throughout most of Bayou Terrebonne. Therefore projection runs were made under several different sets of conditions. These projections included runs with variable reductions in the nonpoint loading and runs with and without the point source discharger.

Figure 6. Bayou Terrebonne Calibration Model Dissolved Oxygen versus River Kilometer (Subsegment 120301, Upper Terrebonne)



3.4.1 Critical Conditions, Seasonality and Margin of Safety

The Clean Water Act requires the consideration of season variation of conditions affecting the constituent of concern, and the inclusion of a margin of safety (MOS) in the development of a TMDL. For the Bayou Terrebonne TMDL, an analysis of LDEQ ambient data has been employed to determine critical seasonal conditions and an appropriate margin of safety.

Critical conditions for temperature and dissolved oxygen were determined for Bayou Terrebonne water quality data from Site 0110 (Bayou Terrebonne at Houma, LA) on the LDEQ Ambient Monitoring Network. The 90th percentile temperature for each season and the corresponding 90% of saturation DO was determined. Ambient temperature data, critical temperature and DO saturation determinations are shown in Appendix G3. Graphical and regression analysis techniques have been used by LDEQ historically to evaluate the temperature and dissolved oxygen data from the Ambient Monitoring Network and run-off determinations from the Louisiana Office of Climatology water budget. Since nonpoint loading is conveyed by run-off, this was reasonable correlation to use. Temperature is strongly inversely proportional to dissolved oxygen and moderately inversely proportional to run-off. Dissolved oxygen and run-off are also moderately directly proportional. The analysis concluded that the critical conditions for stream dissolved oxygen concentrations were those of negligible nonpoint run-off and low stream flow combined with high stream temperature.

When the rainfall run-off (and non-point loading) and stream flow are high, turbulence is higher due to the higher flow and the temperature is lowered by the run-off. In addition, run-off coefficients are higher in cooler weather due to reduced evaporation and evapotranspiration, so that the high flow periods of the year tend to be the cooler periods. Reaeration rates and DO saturation are, of course, much higher when water temperatures are cooler, but BOD decay rates are much lower. For these reasons, periods of high loading are periods of higher reaeration and dissolved oxygen but not necessarily periods of high BOD decay.

This phenomenon is interpreted in TMDL modeling by assuming that nonpoint loading associated with flows into the stream are responsible for the benthic blanket which accumulates on the stream bottom and that the accumulated benthic blanket of the stream, expressed as SOD and/or resuspended BOD in the calibration model, has reached steady state or normal conditions over the long term and that short term additions to the blanket are offset by short term losses. This accumulated loading has its greatest impact on the stream during periods of higher temperature and lower flow. The manmade portion of the NPS loading is the difference between the calibration load and the reference stream load where the calibration load is higher. The only mechanism for changing this normal benthic blanket condition is to implement best management practices and reduce the amount of nonpoint source loading entering the stream and feeding the benthic blanket.

Critical season conditions were simulated in the Bayou Terrebonne dissolved oxygen TMDL projection modeling by using the 90th percentile temperature and the corresponding 90% of saturation DO. The seasonal critical flows for the model north of weir # 3 were obtained from the Louisiana Total Maximum Daily Load Technical Procedures Manual. Incremental flow was observed under the survey conditions. The survey conditions were considered to be comparable to summer critical conditions. Therefore, incremental flow was used in the projection model. Model loading was primarily from sediment oxygen demand and resuspension of sediments. The reduced loading values were estimated with a projection load calculation spreadsheet. (LAC 33.LX.1115, Table 2a).

In reality, the highest temperatures occur in July-August, the lowest stream flows occur in October-November, and the maximum point source discharge occurs following a significant rainfall, i.e., high-flow conditions. The summer projection model is established as if all these conditions happened at the same time. The winter projection model accounts for the seasonal differences in flows and BMP efficiencies. Other conservative assumptions regarding rates and loadings are also made during the modeling process. In addition to the conservative measures, an explicit MOS of 10% was used for all loads to account for safety, model uncertainty and data inadequacies. Growth is expected to be minimal for the region.

3.4.2 Input Data Documentation

The projection flows for Bayou Terrebonne north of weir # 3 were based on the values recommended in the LTP. Justifications for the input data are provided in Appendices E4 and E8. The boundary and initial conditions values for temperature and dissolved oxygen were adjusted to critical values as recommended in the LTP.

3.4.2.1 Model Options, Data Type 2

Six constituents were modeled during the calibration and projection process. Due to the higher chlorophyll *a* values used in reach one of the calibration model, chlorophyll *a* was reduced in Data Type 11 Initial Conditions, but not eliminated. This action was based on the assumption that the algal concentration would be reduced with the reduction in nutrients, but not totally eliminated in reach one. Chlorophyll *a* was eliminated from the Initial Conditions in the remaining reaches. Chorophyll a was also eliminated from the Incremental Flow (Data Type 18).

3.4.2.1 Program Constants, Data Type 3

The program constants were retained from the calibration model.

3.4.2.2 Temperature Correction of Kinetics, Data Type 4

The temperature correction factors specified in the LTP were utilized in the model.

3.4.2.3 Reach Identification Data, Data Type 8

The reach-element design from the calibration model was used in the projection modeling.

3.4.2.4 Advection Hydraulic Coefficients, Data Type 9

The widths and depths were assumed to be constant at critical conditions, as in the calibration model.

3.4.2.5 Initial Conditions, Data Type 11

The initial conditions were set to the 90th percentile critical season temperature in accordance with the LTP. The data was obtained from LDEQ's Ambient Network Site 110. The dissolved oxygen values for the initial conditions were set to the criteria.

3.4.2.6 Reaeration Rates, Carbonaceous BOD Decay and Settling Rates, Nitrogenous BOD Decay and Settling Rates, Data Type 12 and 15

The reaeration rate equations, CBOD decay and settling rates, NBOD decay and settling rates, and the fractions converting settled CBOD and settled NBOD to SOD were not changed from the calibration.

3.4.2.7 Incremental Conditions, Data Types 16, 17, and 18

The incremental conditions were retained from the calibration model.

3.4.2.8 Sediment Oxygen Demand, Nonpoint Sources, Headwaters, Wasteloads, Data Type 12, 19, 20, 21, 22, 24, 25, and 26

The NPS values were calculated for each projection scenario using a load equivalent spreadsheet. Background loading values were not estimated due to the lack of data for a comparable reference stream.

LDEQ has collected and measured the CBOD and NBOD oxygen demand loading components for a number of years. These loads have been found in all streams including the non-impacted reference streams. It is LDEQ's opinion that much of this loading is attributable to run-off loads which are flushed into the stream during run-off events, and subsequently settle to the bottom in our slow moving streams. These benthic loads decay and breakdown during the year, becoming easily resuspended into the water column during the low flow/high temperature season. This season has historically been identified as the critical dissolved oxygen season.

LDEQ simulates part of the non-point source oxygen demand loading as resuspended benthic load and SOD. The calibrated non-point loads, UCBOD, UNBOD and SOD, are summed to produce the total calibrated benthic load. Typically, the total calibrated benthic load is then reduced by the total background benthic load (determined from LDEQ's reference stream research) to determine the total manmade benthic loading. The manmade portion is then reduced incrementally on a percentage basis to determine the necessary percentage reduction of manmade loading required to meet the water body's dissolved oxygen criteria. These reductions are applied uniformly to all reaches sharing similar hydrology and land uses. In the case of Bayou Terrebonne, representative background loads were not available. Therefore the nonpoint load reductions were applied to the total nonpoint loads, rather than the man-made nonpoint loads.

Following the same protocol as the point source discharges, the total reduced manmade benthic load is adjusted for the margin of safety by dividing the value by one minus the margin of safety. This adjusted load is added back to the total background benthic value to obtain the total projection model benthic load. This total projection benthic load is then broken out into its components of SOD,

resuspended CBOD and resuspended NBOD by multiplying the total projection benthic load by the ratio of each calibrated component to the total calibrated benthic load.

LDEQ has found variations in the breakdown of the individual CBOD and NBOD components. While the total BOD is reliable, the carbonaceous and nitrogenous component allocation is subject to the type of test method. In the past, LDEQ used a method which suppressed the nitrogenous component to obtain the carbonaceous component value, which was then subtracted from the total measured BOD to determine the nitrogenous value. The suppressant in this method was only reliable for twenty days thus leading to the assumption that the majority of the carbonaceous loading was depleted within that period of time. The test results supported this assumption. Recently the suppressant started failing around day seven and the manufacturer of the suppressant will only guarantee its potency for a five day period. LDEQ felt a five day test would not adequately depict the water quality of streams and began a search for a new test method. The research found a new proposed method for testing long term BODs in Standard Methods.

This proposed method is a sixty day test which measures the incremental total BOD of the sample while at the same time measuring the increase in nitrite/nitrate in the sample. This increase in nitrite/nitrate allows LDEQ to calculate the incremental nitrogenous portion by multiplying the increase by 4.57 to determine the NBOD daily readings. These NBOD daily readings are then subtracted from the daily reading for total BOD to determine the CBOD daily values. A curve fit algorithm is then applied to the daily component readings to obtain the estimated ultimate values of each component as well as the decay rate and lag times of the first order equations.

LDEQ implemented the new test method in 2001. The results obtained using the new method showed that a portion of the CBOD first order equation does begin to level off prior to the twentieth day, however a secondary CBOD component begins to use dissolved oxygen sometime between day ten and day twenty-five. This secondary CBOD component was not being assessed as CBOD using the previous method but was being included in the NBOD load. Thus the CBOD and NBOD component loading used in the reference stream studies is not consistent with the results using the new proposed 60 day method and the individual values should not be used to determine background values for samples processed using the new test methods. However, the sum of CBOD and NBOD should be about the same for both new and old test methods. For this reason LDEQ decided to use the sum of reference stream benthic loads as background values.

3.4.2.9 Lower Boundary Conditions, Data Type 27

The lower boundary conditions were set to the 90th percentile critical season temperature, the dissolved oxygen criteria, and the measured stream UCBOD and UNBOD loads for all projections.

3.4.2.10 Dam Data, Data Type 28

The dam data was retained from the calibration model.

3.4.3 Model Discussion and Results

Projection models were developed in an attempt to estimate the reduction in nonpoint loading required

to meet the DO standard, develop a wasteload allocation for the Schriever School, and assess the existing DO standard of the waterbody.

The first step was to develop summer projection runs with the point source discharge and variable reductions in the nonpoint loading to determine which scenario met the existing DO standard of 5.0 mg/L. A corresponding winter projection was developed. The point source discharger was then removed to determine the impacts of the facility.

The projection model input and output data sets are presented in Appendix E.

3.4.3.1 Summer Projection without Dischargers

Summer critical season projections were run for the current standard of 5.0 mg/L May – November without the Schreiver School to determine the impact it was having on Bayou Terrebonne. With an 80% reduction in the total nonpoint loads and no point sources, the minimum dissolved oxygen concentration was 5.69 mg/L. Based on a comparison of projection results both with and without the Schriever School, it was determined that the school is having only a slight impact on Bayou Terrebonne and changing the limits will not make a significant impact. .

3.4.3.2 Summer Projection

Simulation results for the model north of weir # 3 indicated that a DO standard of 5.0 mg/L could be maintained during the summer months with an 80 percent reduction of the total nonpoint load and a treatment level of 30 mg/L CBOD₅ at the Schriever School. The minimum projected DO concentration was 5.24 mg/L.

Given the fact that the bayou primarily serves to drain the neighboring land, the bayou may be a candidate for Use Attainability Analysis (UAA) and / or a change in the DO standard.

Figures 7 and 8 show the projected dissolved oxygen concentrations.

3.4.3.3 Winter Projection

Winter projections for the Upper Terrebonne model demonstrated that the DO standard could be achieved with an 80 percent reduction of the total nonpoint load and a treatment level of 30 mg/L CBOD₅ Schriever School. The minimum projected DO concentration was 7.45 mg/L.

3.4.3.4 Alternate Standards

Table 6 shows the nonpoint load reduction percentages and the corresponding minimum DO concentrations. These results serve as a basis for recommending alternate DO standards.

Figure 7. Bayou Terrebonne (Upper Terrebonne) - Summer Projection, 80% Removal of the Total NPS Loads vs. a DO Standard of 5.0 mg/L - Schriever School with limits of 30 mg/L CBOD5 / 15 mg/L NH3-N / 2 mg/L DO

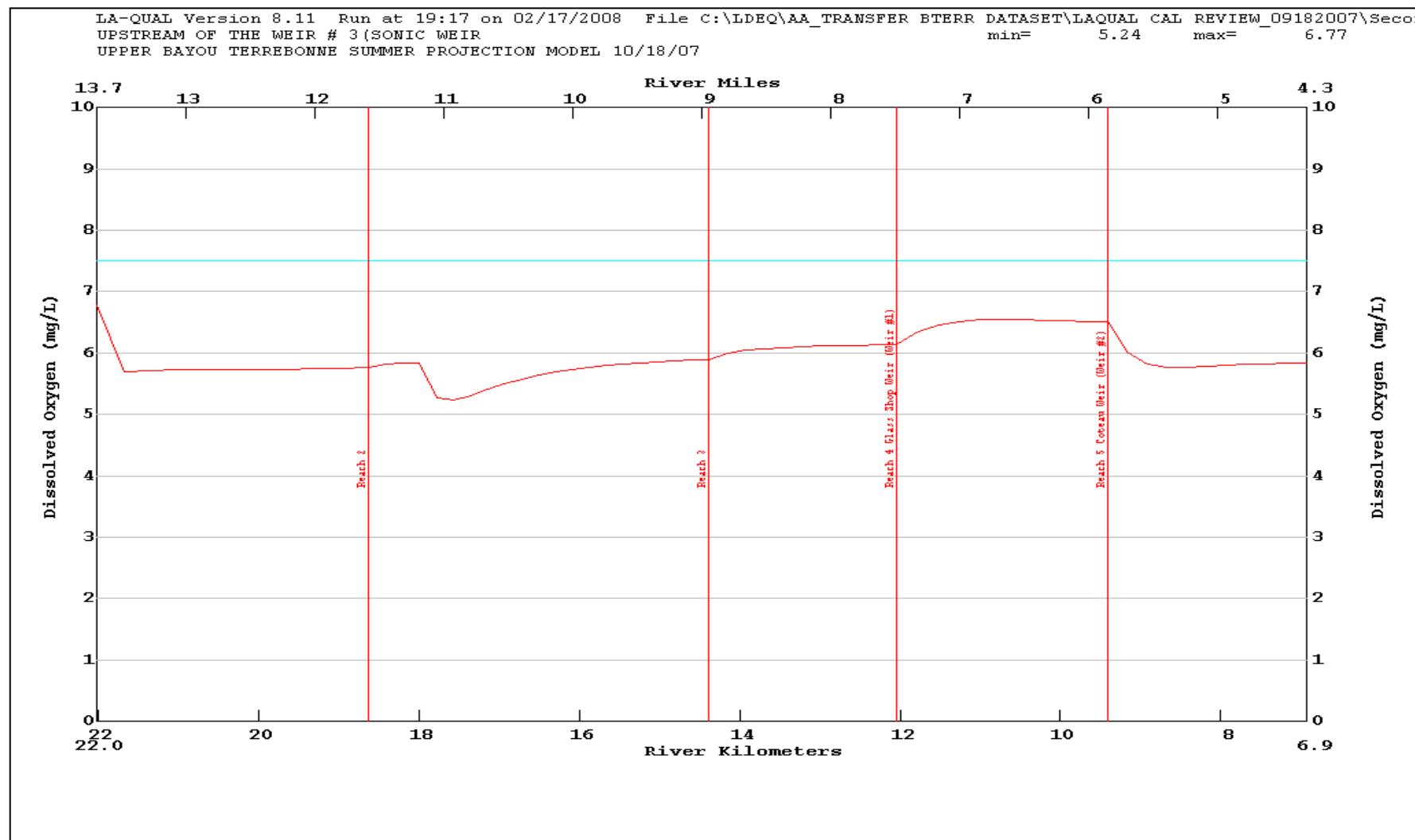


Figure 8. Bayou Terrebonne (Upper Terrebonne) - Winter Projection, 80% Removal of the Total NPS Loads vs. a DO Standard of 5.0 mg/L - Schriever School with limits of 30 mg/L CBOD5 / 15 mg/L NH3-N / 2 mg/L DO

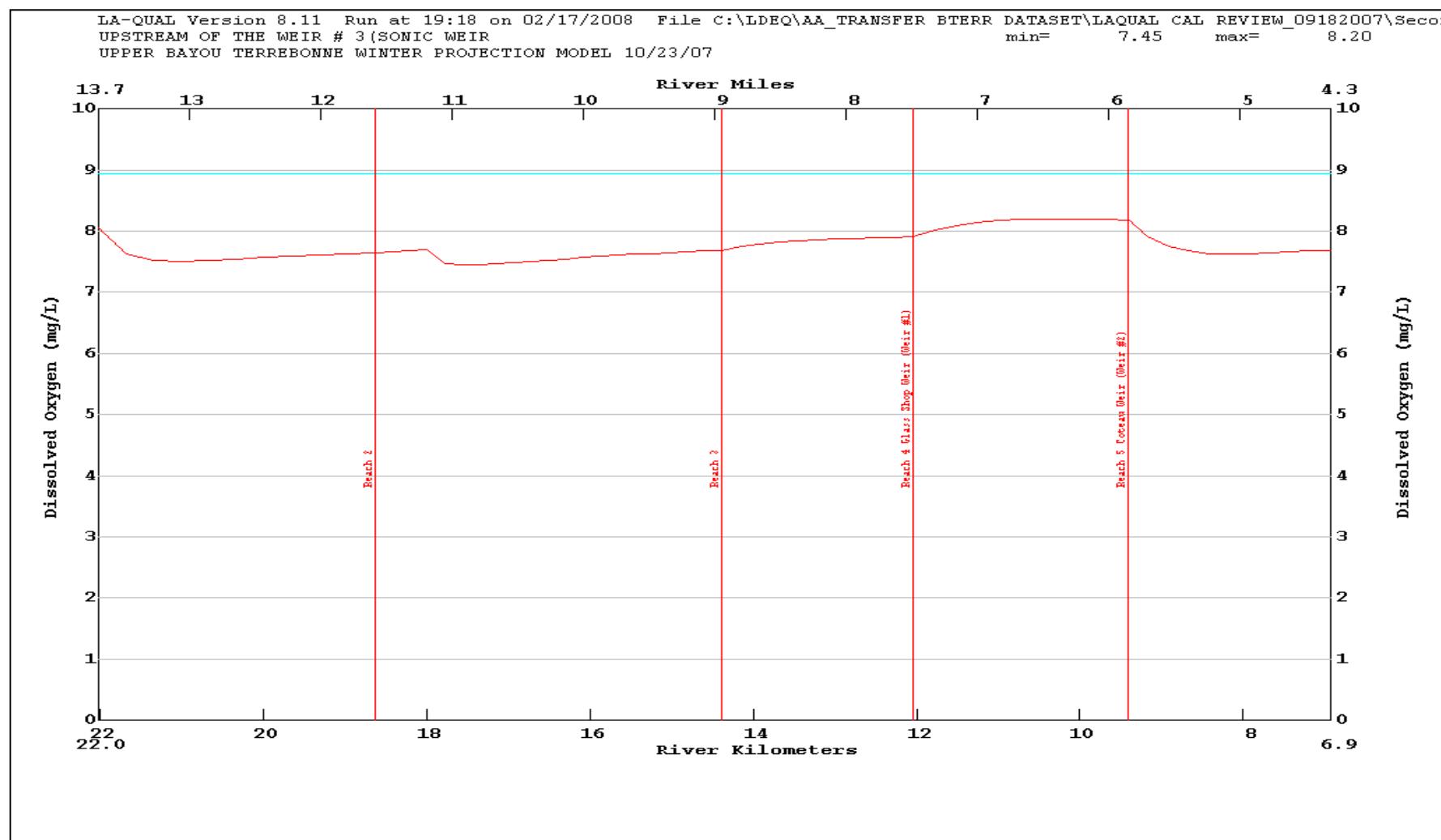


Table 6. Bayou Terrebonne Projection Scenarios – Upper Terrebonne

BAYOU TERREBONNE PROJECTION SUMMARY (Headwater to Weir # 3)				
			Summer	Winter
MOS	% NP Reduction	PS Treatment Level (CBOD5/NH3-N)	MIN DO (mg/L)	MIN DO (mg/L)
10	80	30/15	5.24	7.45
10	80	No PS	5.69	
10	40	30/15	2.32	

3.4.4 Calculated TMDL, WLAs and LAs

3.4.4.1 Outline of TMDL Calculations

An outline of the TMDL calculations is provided to assist in understanding the calculations in the Appendices. Slight variances may occur based on individual cases.

3.4.4.1.1 The natural background benthic loading (nonpoint CBOD and NBOD and SOD load data) was not estimated for Bayou Terrebonne due to the lack of a comparable reference stream.

3.4.4.1.2 The calibration man-made benthic loading was not determined. However, the total calibration benthic loading was estimated by summing the Calibration resuspension (nonpoint CBOD and NBOD) and SOD loads for each reach.

3.4.4.1.3 Projection benthic loads are determined by trial and error during the modeling process using a uniform percent reduction for total nonpoint load (resuspension and SOD). Point sources are reduced as necessary to subsequently more stringent levels of treatment, consistent with the size of the treatment facility as much as possible. Point source design flows are increased to obtain an explicit MOS of 20%. Headwater and tributary concentrations of CBOD, NBOD and DO were based on reduced levels of the calibration values.

- The projection benthic loading at 20 °C is calculated as the sum of the projection resuspension and SOD components expressed as gm O₂/m²-day.
- The percent reduced total nonpoint loads for each reach is determined based on the selected percentage of reduction and the calibration total nonpoint loads.
- The projection loads are also computed in units of lb/d and kg/d for each kind.

3.4.4.1.4 The total stream loading capacity at critical water temperature is calculated as the sum of:

- Headwater and tributary CBOD and NBOD loading in lb/d and kg/d.

- The total projection benthic loading for all reaches of the stream is converted to the loading at critical temperature and summed in lb/d and kg/d.
- Point source CBOD and NBOD loading is presented in lb/d and kg/d.
- The margin of safety is presented in lb/d and kg/d.

4. Model Documentation (Lower Terrebonne)

4.1 Program Description

Refer to section 3.1 for the basic description and historical development of the program.

4.2 Calibration Input Data Documentation

The lower portion of Bayou Terrebonne in subsegment 120301 was impacted by tidal flows. Water surface fluctuations and calculated dispersion values were used to simulate the effects of tidal flows.

4.2.1 Model Schematics and Maps

Vector diagrams are presented in Figures 1 and 2. A map of the study area and a landuse map are included in Appendix J.

Refer to section 3.2.1 for additional information.

4.2.2 Model Options, Data Type 2

Model options were consistent with those for the model north of weir #3. Refer to section 3.2.2 for basic information. Calibration procedures are explained in Section 4.3.

4.2.3 Temperature Correction of Kinetics, Data Type 4

Refer to section 3.2.3 for temperature correction information.

4.2.4 Reach Identification Data, Data Type 8

Refer to section 3.2.4 for basic information regarding the reaches and study area.

Seven reaches were used to simulate the bayou from weir # 3 to the Intracoastal Waterway.

4.2.5 Advection Hydraulic Coefficients, Data Type 9

Constant widths and depths were also used for the Lower Terrebonne model. Whenever possible, reach widths and depth were based on values obtained at the southern end of each reach. For the

remaining reaches, the width and depth values were estimated based on the values used in adjacent reaches.

4.2.6 Dispersive Hydraulic Coefficients, Data Type 10

Dispersion is a significant characteristic of Bayou Terrebonne from weir #3 to the ICWW. The dispersion was estimated based on the dye study. The dye study was conducted using the moving site method. There were four dye runs conducted by boat during this study. Based on the data retrieved, the final dye run was determined to be most representative of the stream. This was because the final dye run had the longest run time. The longer time frame gave the dye a longer time to become more uniformly dispersed in the river. The centroid of this dye run was located near BT11. The Kd value was determined to be 0.143 m²/sec.

To take into consideration all modes of transport, equation 2, ($D_L = aD^bQ^cV_T^d$) in Laqual was used. Using b=5/6, c=0, and d=1 will take into account all modes of transport in the manner of the Tracor and QUAL2E equations. The tide heights measured at sites BT07, BT09, BT10, BT12, and ICWW served as the basis for the dispersion calculations. The value for coefficient "a" was calibrated to within the boundaries of the final dye run by setting all other parameters to the previously mentioned values. Dipserion documentaion can be found in Appendix H6. Plots of the dye calibration are presented in Appendix C1.

4.2.7 Initial Conditions, Data Type 11

The input values were obtained from the survey station located at or near the southern end of each reach. Please refer to section 3.2.7 for additional information. The input data and sources are shown in Appendices C5.

4.2.8 Reaeration Rates, Data Type 12

Based on the measured depths and velocities of Bayou Terrebonne between weir #3 and the ICWW the Owen-Edwards-Gibbs reaeration equation for velocities less than 1.8 feet per second was considered to be the most applicable equation.

4.2.9 Sediment Oxygen Demand, Data Type 12

The SOD values were achieved through calibration. The values ranged from 0.0 to 2.2 gm O₂/m²/day.

4.2.10 Carbonaceous BOD Decay and Settling Rates, Data Type 12

The decay rates used were based on the bottle rates from the survey. The values used for CBOD1 decay rates ranged from 0.2 to 0.41. The value used for CBOD2 decay rates was 0.03. The settling rates were set to 0.05. The decay rates used for each reach are shown in Appendix H5 – BOD Calculations.

4.2.11 Nitrogenous BOD Decay and Settling Rates, Data Type 15

The decay rates used were based on the bottle rates from the survey. NBOD decay rates ranged from 0.09 to 0.17. The settling rates were set to 0.025. The decay rates used for each reach are shown in Appendix H5 – BOD Calculations.

4.2.12 Incremental Conditions, Data Types 16, 17, and 18

Incremental flow was used to calibrate to flows estimated for each survey site. An average velocity was calculated by dividing the distance between the dye dump site and the centroid of dye run 4 by the time-of-travel for dye run 4. This velocity was multiplied by the cross sectional area at each survey site to determine the estimated flow. Incremental (differential) flow values were calculated between the survey sites. The water quality data was obtained from field and laboratory measurements for the survey sites located within the individual reaches.

4.2.13 Nonpoint Sources, Data Type 19

Refer to section 3.2.13 for basic information regarding the nonpoint loading. The input data is consistent with that used for the Upper Terrebonne model.

4.2.14 Headwaters, Data Types 20, 21, and 22

Data obtained at site BT07 was utilized for the headwater data in the model south of weir # 3. The data and sources are presented in Appendix C2.

4.2.15 Wasteloads, Data Types 23, 24, and 25

No facilities were included in this model.

Typically, any tributaries or distributaries that are not simulated, are included in the model as a boundary point in the Wasteloads section of the LAQUAL input file. However, no tributaries or distributaries were included in this model of Bayou Terrebonne.

It appears as if St. Louis Canal may have been connected to Bayou Terrebonne at one time. However, it has been separated from Bayou Terrebonne. It currently flows to the Intracoastal Waterway through a pump station located at New Orleans Boulevard.

4.2.16 Boundary Conditions, Data Type 27

Measurements taken at the ICWW were used for the lower boundary condition values in the model south of weir number # 3.

4.2.17 Dam Data, Data Type 28

The dam functionality of LAQUAL was not utilized for the Lower Terrebonne model. The model begins immediately downstream of weir #3. No other weirs are known to exist between weir #3 and the ICWW.

4.3 Model Discussion and Results

The calibration model input and output is presented in Appendix C1. The overlay plotting option was used to determine if calibration had been achieved. A plot of the dissolved oxygen concentration versus river kilometer is presented in Figure 9.

During the reconnaissance and TMDL surveys, the waterbody was noted to be somewhat impacted by algae and aquatic vegetation. Some portions of the stream were lined with trees or shrubs while other areas were lined with buildings.

South of weir #3, Bayou Terrebonne becomes wider and deeper. The waterbody is bordered by an urban watershed. Stormwater runoff is conveyed to the waterbody through various stormwater drains. As in the case of the waterbody north of weir # 3, these drains may also convey the effluent of neighboring facilities. Their impact is accounted for in the model using nonpoint loading. This portion of the waterbody is impacted by the tidal fluctuations and barge traffic within the Intracoastal Waterway. Bayou Terrebonne is intersected by the Intracoastal Waterway at the lower boundary of the study area.

Data from Site BT07 was used as the headwater data for the Lower Terrebonne model. The velocity obtained from the dye study was multiplied by the cross section at BT07 to produce the headwater flow.

Four dye runs were made during the survey resulting in four calculated dispersion values. The value obtained from the last run was considered to be the most representative of the waterbody. Dispersion was roughly calibrated to this dispersion value, which enabled adequate hydrologic and water quality calibrations.

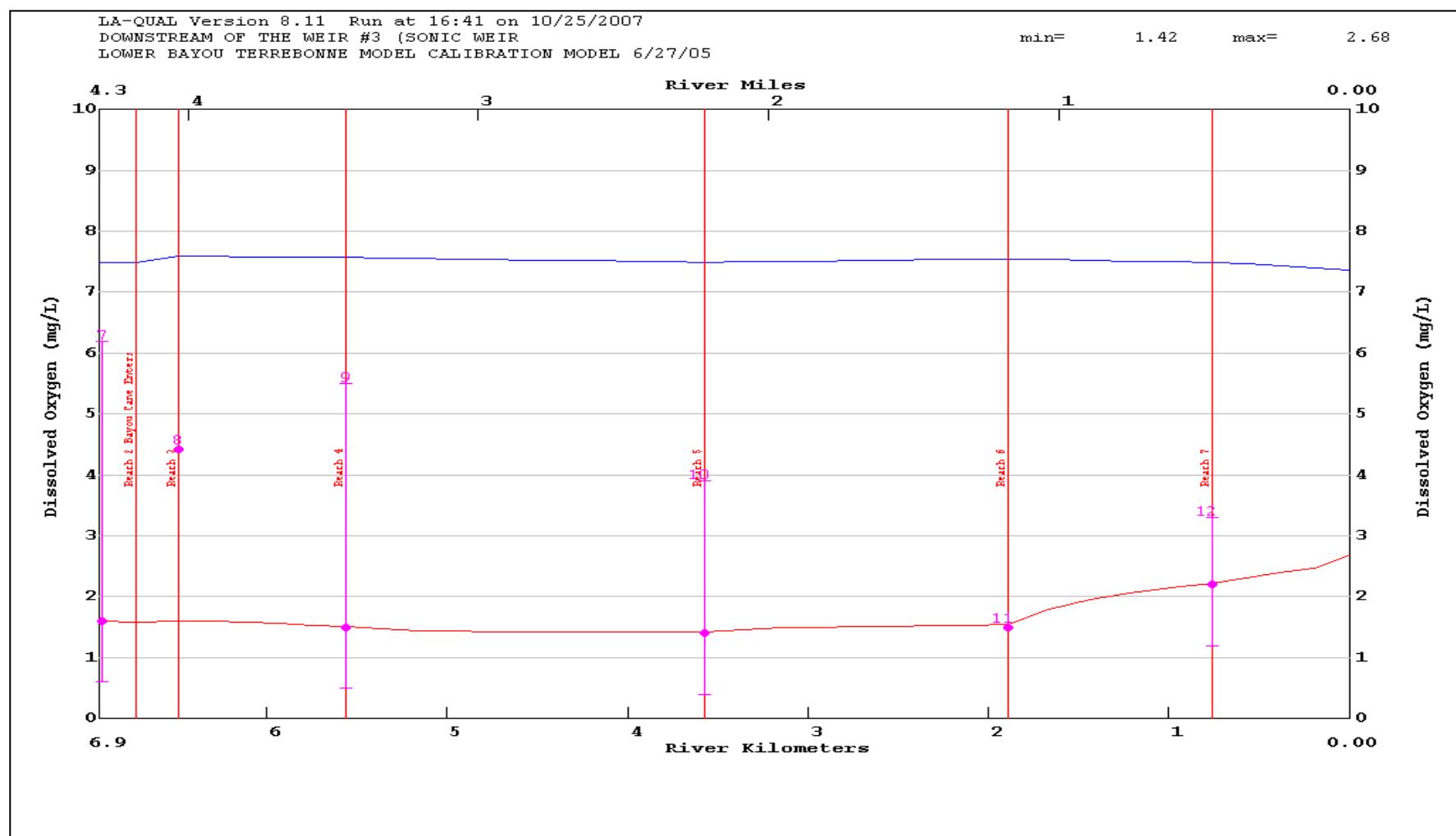
The simulations could not match the measured chloride value at BT10. This is believed to be caused by an anomaly. While the exact measured conductivity values were not matched by the model, an adequate calibration was achieved.

Adequate calibrations were achieved for DO, UCBOD1, UCBOD2, and UNBOD on the main stem. The DO standard of 5 mg/L was not being met under the conditions in which the survey was conducted. The minimum DO for the model south of of weir # 3 was 1.42 mg/l .

Calibrations to chlorides and conductivity were marginal at best, but considered adequate to support the small amount of hydraulic data available.

It should be noted that the primary function of Bayou Terrebonne in Subsegment 120301 is to serve as a drainage ditch between two roads. The banks along this portion of Bayou Terrebonne are upheld by bulkheads. These characteristics indicate that the waterbody has been altered to the extent that the existing DO standard of 5 mg/L will be practically impossible to achieve. An appropriate DO standard for Bayou Terrebonne should be established.

Figure 9. Bayou Terrebonne Calibration Model Dissolved Oxygen versus River Kilometer (Bayou Terrebonne, Subsegment 120301, Lower Terrebonne)



4.4 Water Quality Projections (Lower Terrebonne)

The calibration model indicated that the DO criterion was not being met throughout most of Bayou Terrebonne. Therefore projection runs were made under several different sets of conditions. These projections included runs with variable reductions in the nonpoint loading.

4.4.1 Critical Conditions, Seasonality and Margin of Safety

Refer to section 3.4.1 for basic information regarding critical conditions, seasonality , and margin of safety.

4.4.2 Input Data Documentation

The headwater projection flows for Bayou Terrebonne south of weir # 3 were based on the values recommended in the LTP. Justifications for the input data are provided in Appendices F4 and F8. The boundary and initial conditions values for temperature and dissolved oxygen were adjusted to critical values as recommended in the LTP.

4.4.2.1 Model Options, Data Type 2

Six constituents were modeled during the calibration and projection process. The chlorophyll *a* values used in the calibration model were reduced but not totally eliminated. This action was based on the assumption that the algal concentration would be reduced with the reduction in nutrients, but not totally eliminated.

4.4.2.1 Program Constants, Data Type 3

The program constants were retained from the calibration model.

4.4.2.2 Temperature Correction of Kinetics, Data Type 4

The temperature correction factors specified in the LTP were utilized in the model.

4.4.2.3 Reach Identification Data, Data Type 8

The reach-element design from the calibration model was used in the projection modeling.

4.4.2.4 Advective Hydraulic Coefficients, Data Type 9

The widths and depths were assumed to be constant at critical conditions. Therefore the coefficients and exponents were set equal to zero.

4.4.2.5 Initial Conditions, Data Type 11

The initial conditions were set to the 90th percentile critical season temperature in accordance with the LTP. The data was obtained from LDEQ's Ambient Network Site 110. The dissolved oxygen values for the initial conditions were set at 90 percent of the dissolved oxygen saturation concentration at the 90th percentile critical season temperature.

4.4.2.6 Reaeration Rates, Carbonaceous BOD Decay and Settling Rates, Nitrogenous BOD Decay and Settling Rates, Data Type 12 and 15

The reaeration rate equations, CBOD decay and settling rates, NBOD decay and settling rates, and the fractions converting settled CBOD and settled NBOD to SOD were not changed from the calibration.

4.4.2.7 Incremental Conditions, Data Types 16, 17, and 18

The incremental conditions were retained from the calibration model.

4.4.2.8 Sediment Oxygen Demand, Nonpoint Sources, Headwaters, Wasteloads, Data Type 12, 19, 20, 21, 22, 24, 25, and 26

Refer to section 3.4.2.8 for background information regarding SOD, nonpoint source loads, headwater loads, and wasteloads.

4.4.2.9 Lower Boundary Conditions, Data Type 27

The lower boundary conditions were set to the 90th percentile critical season temperature, the 90 percent of saturation dissolved oxygen concentration, and the measured stream UCBOD and UNBOD loads for all projections.

4.4.2.10 Dam Data, Data Type 28

Dams or weirs were not simulated in this model.

4.4.3 Model Discussion and Results

Projection models were developed in an attempt to estimate the reduction in nonpoint loading required to meet the DO standard and assess the existing DO standard of the waterbody.

The first step was to develop summer projection runs with the point source discharge and variable reductions in the nonpoint loading to determine which scenario met the existing DO standard of 5.0 mg/L. A corresponding winter projection was developed.

The projection model input and output data sets are presented in Appendix F.

4.4.3.1 No Load Scenario

The “No Load Scenario” typically refers to no “man-made” load. There are no reference streams that are comparable to Bayou Terrebonne. Therefore, the natural portion of the NPS load could not be determined and a “No Load Scenario” could not be developed.

4.4.3.2 Summer Projection

Simulation results for the Lower Terrebonne model indicated that a DO standard of 5.0 mg/L could be maintained during the summer months with an 70 percent reduction of the total nonpoint load. The minimum projected DO concentration was 5.11 mg/L.

Given the fact that the bayou primarily serves to drain the neighboring land, the bayou may be a candidate for Use Attainability Analysis (UAA) and / or a change in the DO standard.

Figures 10 and 11 show the projected dissolved oxygen concentrations for the summer and winter projections.

4.4.3.3 Winter Projection

Winter projections for the Bayou Terrebonne model south of weir # 3 demonstrated that the DO standard could be achieved with an 70 percent reduction of the total nonpoint load. The minimum projected DO concentration was 6.17 mg/L.

4.4.3.4 Alternate Standards

Table 7 shows the nonpoint load reduction percentages and the corresponding minimum DO concentrations. These results serve as a basis for recommending alternate DO standards

Table 7. Bayou Terrebonne Projection Scenarios – Lower Terrebonne

BAYOU TERREBONNE PROJECTION SUMMARY (Weir # 3 to ICWW)			
MOS	% NP Reduction	Summer	Winter
		MIN DO (mg/L)	MIN DO (mg/L)
10	70	5.11	6.17
10	65	4.88	
10	60	4.61	
10	20	2.02	

Figure 10. Bayou Terrebonne, Lower Terrebonne - Summer Projection, No Point Source Loads, 70% Removal of the Total NPS Loads vs. a DO Standard of 5.0 mg/L

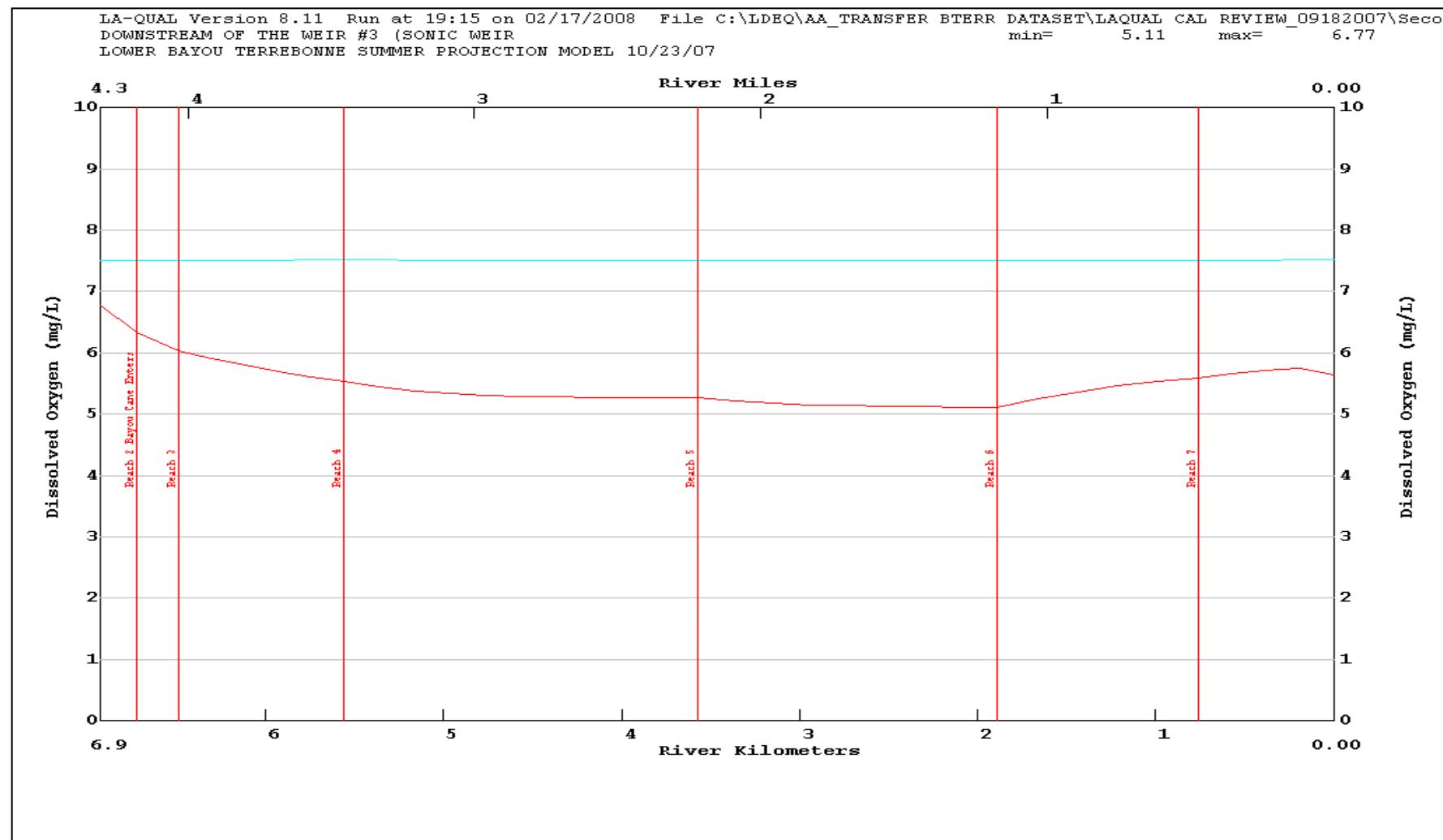
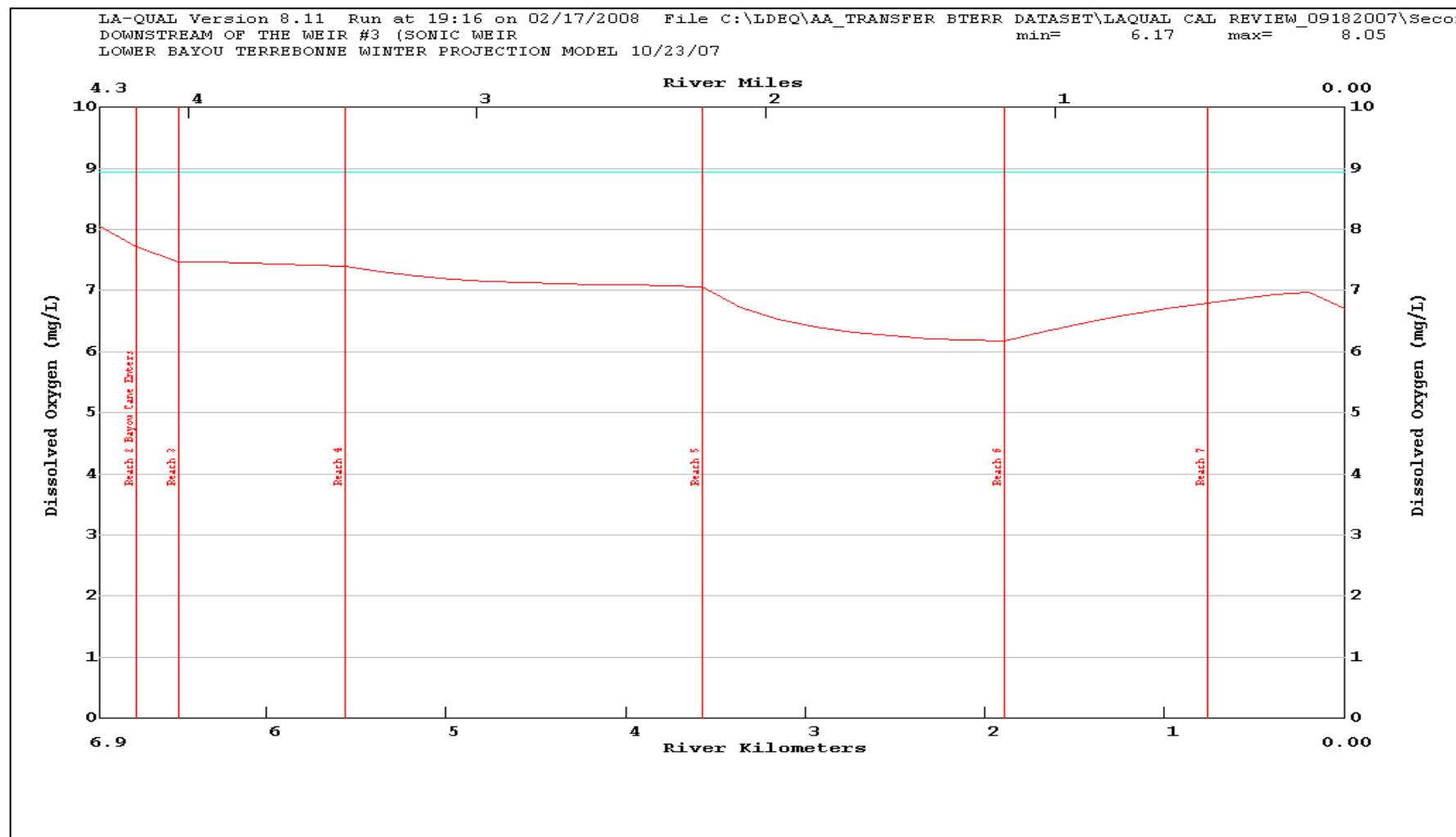


Figure 11. Bayou Terrebonne, Lower Terrebonne – Winter Projection, No Point Source Loads, 70% Removal of the Total NPS Loads vs. a DO Standard of 5.0 mg/L



4.4.4 Calculated TMDL, WLAs and LAs

4.4.4.1 Outline of TMDL Calculations

Refer to section 3.4.4.1 for an explanation of the TMDL calculations.

5. Bayou Terrebonne TMDL (Headwaters to ICWW)

The TMDLs for the biochemical oxygen demanding constituents (CBOD, NBOD, and SOD), have been calculated for the summer and winter critical seasons. The TMDLs for the Bayou Terrebonne watershed were set equal to the total stream loading capacity of both modeled segments, Upper and Lower Terrebonne. They are presented in Appendix A.

The summer projection models required an 80 percent reduction in the total nonpoint load in order to meet the DO criteria north of weir # 3. A 70 percent reduction was required south of weir #3.

Nonpoint BMP's do not work on a seasonal basis. Therefore, the nonpoint reductions required by the summer projections were applied to the winter projections.

Due to the characteristics of the waterbody and its use as a drainage canal, the Schriever School was included with the summer and winter TMDLs with the existing permit limits of 30 mg/L CBOD₅.

Existing MS4 permits are listed with other unmodeled dischargers in the Subsegment 120301. Because storm water discharges are due to storm events that are highly variable in frequency and duration and are not easily characterized, it is difficult to determine with precision or certainty the actual and projected loadings for individual dischargers or groups of dischargers. Therefore, it is intended that the permit conditions of the individual dischargers remain in effect. Limits for MS4s should be expressed as best management practices rather than as numeric effluent limits.

6. Sensitivity Analysis

All modeling studies necessarily involve uncertainty and some degree of approximation. It is therefore of value to consider the sensitivity of the model output to changes in model coefficients, and in the hypothesized relationships among the parameters of the model. The LAQUAL model allows multiple parameters to be varied with a single run. The model adjusts each parameter up or down by the percentage given in the input set. The rest of the parameters listed in the sensitivity section are held at their original projection value. Thus the sensitivity of each parameter is reviewed separately. A sensitivity analysis was performed on the calibration model. The sensitivity of the model's minimum DO projections to these parameters is presented in Appendix I. Parameters were varied by +/- 30%, except temperature, which was adjusted +/- 2 degrees Centigrade.

Results are reported in Appendix K and Tables 9 and 10 are sorted by percentage variation of minimum DO in the main stem of Bayou Terrebonne from largest percentage variation to the smallest. As shown in Table 9, the Upper Terrebonne model was extremely sensitive to benthal demand, initial temperature, and stream reaeration. These results were caused by the shallow and stagnant characteristics of the stream. The model was also moderately sensitive to the CBOD aerobic decay

rate, nonpoint source CBOD, stream depth, and stream velocity. The primary problem in the Upper Terrebonne is the lack of sustained flow caused by the disconnection from Bayou Lafourche and the three weir structures. The Upper Terrebonne model should not be implemented unless the connection to Bayou Lafourche is reestablished and the weirs removed.

Table 10 shows that the Lower Terrebonne model was very sensitive to stream reaeration. The model was moderately sensitive to benthal demand, initial temperature, headwater DO, and depth.

Table 8. Total Maximum Daily Load (Sum of UCBOD, UNBOD, and SOD)

ALLOCATION	SUMMER		WINTER	
	% Reduction Required	(May-Oct) (lbs BOD/day)	% Reduction Required	(Nov-Apr) (lbs BOD/day)
Point Source WLA		29		29
Point Source Reserve MOS = 20 %		7		7
Total Nonpoint Source LA	80 / 70	1,479	80 / 70	1,164
Total Nonpoint Source MOS Summer = 10% upstream/10% downstream Winter = 10% upstream/10% downstream		165		130
TMDL		1,680		1,330

***Note1: UCBOD as stated in this allocation is Ultimate CBOD.

UCBOD to CBOD₅ ratio = 2.3 for all treatment levels

Permit allocations are generally based on CBOD₅***

7. Conclusions

This TMDL establishes load limitations for oxygen-demanding substances and goals for reduction of those pollutants. LDEQ's position, as supported by the declaratory ruling issued by Secretary Givens in response to the lawsuit regarding water quality criteria for nutrients (Sierra Club v. Givens, 710 So.2d 249 (La. App. 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998)), is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. The implementation of this TMDL through wastewater discharge permits and implementation of best management practices to control and reduce runoff of soil and oxygen-demanding pollutants from nonpoint sources in the watershed will also control and reduce the nutrient loading from those sources.

The summer projections indicated that the DO standard of 5.0 mg/L could be maintained upstream of weir #3 with an 80 percent reduction in the total nonpoint loading and a treatment level of 30 mg/L CBOD₅ at the Schriever School. The DO standard could be achieved downstream of weir #3 with a 65 percent reduction in the total nonpoint load.

Given the fact that the bayou primarily serves to drain the neighboring land, the bayou may be a candidate for Use Attainability Analysis (UAA) and/or a change in the DO standard. In addition, no changes in the permit limits are recommended for the Schriever School. The recommended permit limits are 30 mg/L CBOD₅.

Table 9. Summary of Calibration Model Sensitivity Analysis (Upper Terrebonne)

SENSITIVITY ANALYSIS SUMMARY UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04 HEADWATER TO WEIR #3						
Plot 1 Base Model Minimum DO = 0.07						
Parameter	% Parameter Change	Min D.O.	% D.O. Change	% Parameter Change	Min D.O.	% D.O. Change
Benthal Demand	-30	1.4	1920.2	30	0	-100
Initial Temperature	-2	0.69	900.6	2	0	-100
Stream Reaeration	-30	0	-100	30	1.4	1920.2
CBOD Aerobic Decay Rate	-30	0.08	12.2	30	0.06	-8.7
Non-Point Source CBOD	-30	0.08	10.2	30	0.06	-9.3
Stream Depth	-30	0.08	8.7	30	0.07	-5.1
Stream Velocity	-30	0.07	7.7	30	0.07	-4
CBOD Settling Rate	-30	0.07	-5.5	30	0.07	5.6
Stream Baseflow	-30	0.07	-4.4	30	0.07	4.6
Incremental Inflow	-30	0.07	-4.4	30	0.07	4.6
Incremental CBOD	-30	0.07	4.1	30	0.07	-3
Initial Salinity	-30	0.07	2.3	30	0.07	-2.3
Incremental DO	-30	0.07	-2.1	30	0.07	2.1
CBOD2 Aerobic Decay Rate	-30	0.07	1	30	0.07	-1
Incremental CBOD2	-30	0.07	0.5	30	0.07	-0.5
Non-Point Source BOD2	-30	0.07	0.5	30	0.07	-0.5
NBOD Decay Rate	-30	0.07	0.1	30	0.07	-0.1
CBOD2 Settling Rate	-30	0.07	0	30	0.07	0
Tidal Range	-30	0.07	0	30	0.07	0
Algae/Chlorophyll Ratio	-30	0.07	0	30	0.07	0
NBOD Settling Rate	-30	0.07	0	30	0.07	0
Initial Chorophyll a	-30	0.07	0	30	0.07	0
Incremental Outflow	-30	0.07	0	30	0.07	0
Incremental Temperature	-30	0.07	0	30	0.07	0
Incremental Chlorophyll a	-30	0.07	0	30	0.07	0
Incremental NBOD	-30	0.07	0	30	0.07	0
Headwater Flow	-30	0.07	0	30	0.07	0
Headwater Temperature	-2	0.07	0	2	0.07	0
Headwater DO	-30	0.07	0	30	0.07	0

SENSITIVITY ANALYSIS SUMMARY
UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
HEADWATER TO WEIR #3

Plot 1 Base Model Minimum DO = 0.07

Parameter	% Parameter Change	Min D.O.	% D.O. Change	% Parameter Change	Min D.O.	% D.O. Change
Headwater CBOD	-30	0.07	0	30	0.07	0
Headwater CBOD2	-30	0.07	0	30	0.07	0
Headwater Chlorophyll a	-30	0.07	0	30	0.07	0
Headwater NBOD	-30	0.07	0	30	0.07	0
Wasteload Flow	-30	0.07	0	30	0.07	0
Wasteload Temperature	-30	0.07	0	30	0.07	0
Wasteload DO	-30	0.07	0	30	0.07	0
Wasteload CBOD	-30	0.07	0	30	0.07	0
Wasteload CBOD2	-30	0.07	0	30	0.07	0
Wasteload Chlorophyll a	-30	0.07	0	30	0.07	0
Wasteload NBOD	-30	0.07	0	30	0.07	0
Ocean Exchange Ratio	-30	0.07	0	30	0.07	0
Lower Boundary Temperature	-2	0.07	0	2	0.07	0
Lower Boundary DO	-30	0.07	0	30	0.07	0
Lower Boundary CBOD	-30	0.07	0	30	0.07	0
Lower Boundary CBOD2	-30	0.07	0	30	0.07	0
Lower Boundary Chlorophyll a	-30	0.07	0	30	0.07	0
Lower Boundary NBOD	-30	0.07	0	30	0.07	0
Non-Point Source NBOD	-30	0.07	0	30	0.07	0

Table 10. Summary of Calibration Model Sensitivity Analysis (Lower Terrebonne)

SENSITIVITY ANALYSIS SUMMARY
LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
WEIR #3 TO THE ICWW

Plot 1 Base Model Minimum DO = 1.42

Parameter	% Parameter Change	Min D.O.	% D.O. Change	% Parameter Change	Min D.O.	% D.O. Change
Stream Reaeration	-30	0.31	-78.3	30	1.6	12.8
Benthal Demand	-30	1.6	12.8	30	0.64	-54.8
Initial Temperature	-2	1.6	12.8	2	1.02	-27.9
Headwater DO	-30	1.28	-9.5	30	1.43	0.7
Stream Depth	-30	1.55	9.1	30	1.32	-7.1
CBOD Aerobic Decay Rate	-30	1.52	7	30	1.33	-6
Stream Velocity	-30	1.5	5.7	30	1.37	-3.8
Non-Point Source CBOD	-30	1.48	4.6	30	1.36	-4.5

SENSITIVITY ANALYSIS SUMMARY
LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
WEIR #3 TO THE ICWW

Plot 1 Base Model Minimum DO = 1.42

Parameter	% Parameter Change	Min D.O.	% D.O. Change	% Parameter Change	Min D.O.	% D.O. Change
Headwater CBOD	-30	1.47	4	30	1.35	-4.7
Incremental DO	-30	1.38	-2.6	30	1.45	2.5
CBOD2 Aerobic Decay Rate	-30	1.44	1.6	30	1.4	-1.5
Incremental CBOD	-30	1.44	1.6	30	1.39	-1.8
NBOD Decay Rate	-30	1.44	1.3	30	1.4	-1.2
Stream Baseflow	-30	1.4	-1.2	30	1.42	0.3
CBOD Settling Rate	-30	1.4	-1.2	30	1.43	1.1
Headwater CBOD2	-30	1.43	0.9	30	1.41	-0.9
Headwater NBOD	-30	1.43	0.7	30	1.41	-0.6
Incremental Inflow	-30	1.41	-0.7	30	1.43	0.7
Incremental CBOD2	-30	1.42	0.4	30	1.41	-0.4
Non-Point Source BOD2	-30	1.42	0.4	30	1.41	-0.4
Non-Point Source NBOD	-30	1.42	0.4	30	1.41	-0.4
Incremental NBOD	-30	1.42	0.3	30	1.41	-0.3
Incremental Outflow	-30	1.42	-0.2	30	1.42	0.2
Headwater Flow	-30	1.42	-0.2	30	1.41	-0.4
Initial Salinity	-30	1.42	0.1	30	1.42	-0.1
NBOD Settling Rate	-30	1.42	-0.1	30	1.42	0.1
CBOD2 Settling Rate	-30	1.42	0	30	1.42	0
Tidal Range	-30	1.42	0	30	1.42	0
Algae/Chlorophyll Ratio	-30	1.42	0	30	1.42	0
Initial Chorophyll a	-30	1.42	0	30	1.42	0
Incremental Temperature	-30	1.42	0	30	1.42	0
Incremental Chlorophyll a	-30	1.42	0	30	1.42	0
Stream Dispersion	-30	1.42	0	30	1.42	0
Headwater Temperature	-2	1.42	0	2	1.42	0
Headwater Chlorophyll a	-30	1.42	0	30	1.42	0
Wasteload Flow	-30	1.42	0	30	1.42	0
Wasteload Temperature	-30	1.42	0	30	1.42	0
Wasteload DO	-30	1.42	0	30	1.42	0
Wasteload CBOD	-30	1.42	0	30	1.42	0
Wasteload CBOD2	-30	1.42	0	30	1.42	0
Wasteload Chlorophyll a	-30	1.42	0	30	1.42	0
Wasteload NBOD	-30	1.42	0	30	1.42	0
Ocean Exchange Ratio	-30	1.42	0	30	1.42	0
Lower Boundary Temperature	-2	1.42	0	2	1.42	0
Lower Boundary DO	-30	1.42	0	30	1.42	0
Lower Boundary CBOD	-30	1.42	0	30	1.42	0
Lower Boundary CBOD2	-30	1.42	0	30	1.42	0
Lower Boundary Chlorophyll a	-30	1.42	0	30	1.42	0

**SENSITIVITY ANALYSIS SUMMARY
LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
WEIR #3 TO THE ICWW**

Plot 1 Base Model Minimum DO = 1.42

Parameter	% Parameter Change	Min D.O.	% D.O. Change	% Parameter Change	Min D.O.	% D.O. Change
Lower Boundary NBOD	-30	1.42	0	30	1.42	0

LDEQ has developed this TMDL to be consistent with the state antidegradation policy (LAC 33:IX.1109.A).

LDEQ will work with other agencies such as local Soil Conservation Districts to implement agricultural best management practices in the watershed through the 319 programs. LDEQ will also continue to monitor the waters to determine whether standards are being attained.

In accordance with Section 106 of the federal Clean Water Act and under the authority of the Louisiana Environmental Quality Act, the LDEQ has established a comprehensive program for monitoring the quality of the state's surface waters. The LDEQ Surveillance Section collects surface water samples at various locations, utilizing appropriate sampling methods and procedures for ensuring the quality of the data collected. The objectives of the surface water monitoring program are to determine the quality of the state's surface waters, to develop a long-term database for water quality trend analysis, and to monitor the effectiveness of pollution controls. The data obtained through the surface water monitoring program is used to develop the state's biennial 305(b) report (*Water Quality Inventory*) and the 303(d) list of impaired waters. This information is also utilized in establishing priorities for the LDEQ nonpoint source program.

The LDEQ is continuing to implement a watershed approach to surface water quality monitoring. In 2004 a four year sampling cycle replaces the previous five year cycle. Approximately one quarter of the states watersheds will be sampled each year so that all of the states watersheds will be sampled within the four year cycle. This will allow LDEQ to determine whether there has been any improvement in water quality following implementation of the TMDLs. As the monitoring results are evaluated at the end of each year, waterbodies may be added to or removed from the 303(d) list.

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9. Appendices

APPENDIX A – DETAILED TMDL ANALYSIS

APPENDIX A1 – SUMMER TMDL SUMMARY 54
APPENDIX A2 – WINTER TMDL SUMMARY 56

APPENDIX A1 – SUMMER TMDL SUMMARY

Summer TMDL Summary:

BAYOU TERREBONNE (SUBSEGMENT 120301)

Calculation of the TMDL - Kilograms per day							
Load description	WLA (kg/day)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	LA (kg/day)	MOS Load (kg/day)
Point Source loads	13						3
Headwater / Tributary loads		15	14	7		36	4
Benthic loads		134	29	30	347	540	60
Incremental Loads		34	38	23		95	11
SUB-TOTAL	13	183	81	60	347	671	78
TMDL = WLA + LA + MOS				762 kg/day			

Calculation of the TMDL - Pounds per day							
Load description	WLA (lbs/day) (1)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	LA (lbs/day) (1)	MOS Load (lbs/day) (1)
Point Source loads	29						7
Headwater / Tributary loads			34	30	15		79
Benthic loads			295	64	66	765	1,191
Incremental Loads			75	84	51		209
SUB-TOTAL	29	404	178	132	765	1,479	172
TMDL = WLA + LA + MOS						1,680 lbs/day	

Notes:

(1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Kilograms per day							
Load description	WLA (kg/day)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	LA (kg/day)	MOS Load (kg/day)
Point Source loads	13						3
Natural Nonpoint Loads	0	0	0	0	0		
Manmade Nonpoint Loads	183	81	60	347	671	75	
SUB-TOTAL	13	183	81	60	347	671	78
TMDL = WLA + LA + MOS				762 kg/day			

Calculation of the TMDL - Pounds per day							
Load description	WLA (lbs/day) (1)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	LA (lbs/day) (1)	MOS Load (lbs/day)
Point Source loads	29						7
Natural Nonpoint Loads	0	0	0	0	0		
Manmade Nonpoint Loads	404	179	132	765	1,480	165	
SUB-TOTAL	29	404	179	132	765	1,480	172
TMDL = WLA + LA + MOS						1,681 lbs/day	

APPENDIX A2 – WINTER TMDL SUMMARY

Winter TMDL Summary:

BAYOU TERREBONNE (SUBSEGMENT 120301)

Calculation of the TMDL - Kilograms per day								
Load description	WLA (kg/day)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	NBOD (kg/day)	LA (kg/day)	MOS Load (kg/day)
Point Source loads	13						3	
Headwater / Tributary loads		21	19	9			49	5
Benthic loads		134	29	30	191		384	43
Incremental Loads		34	38	23			95	11
SUB-TOTAL	13	189	86	62	191		528	62
TMDL = WLA + LA + MOS					603 kg/day			

Calculation of the TMDL - Pounds per day								
Load description	WLA (lbs/day) (1)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	LA (lbs/day) (1)	MOS Load (lbs/day) (1)	
Point Source loads	29						7	
Headwater / Tributary loads		46	42	20			108	11
Benthic loads		295	64	66	421		847	95
Incremental Loads		75	84	51			209	24
SUB-TOTAL	29	416	190	137	421		1,164	137
TMDL = WLA + LA + MOS					1,330 lbs/day			

Notes:

(1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Kilograms per day						
Load description	WLA (kg/day)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	LA (kg/day)
Point Source loads	13					3
Natural Nonpoint Loads	0	0	0	0		0
Manmade Nonpoint Loads	189	86	62	191		528
						59
SUB-TOTAL	13	189	86	62	191	528
						62
TMDL = WLA + LA + MOS					603 kg/day	

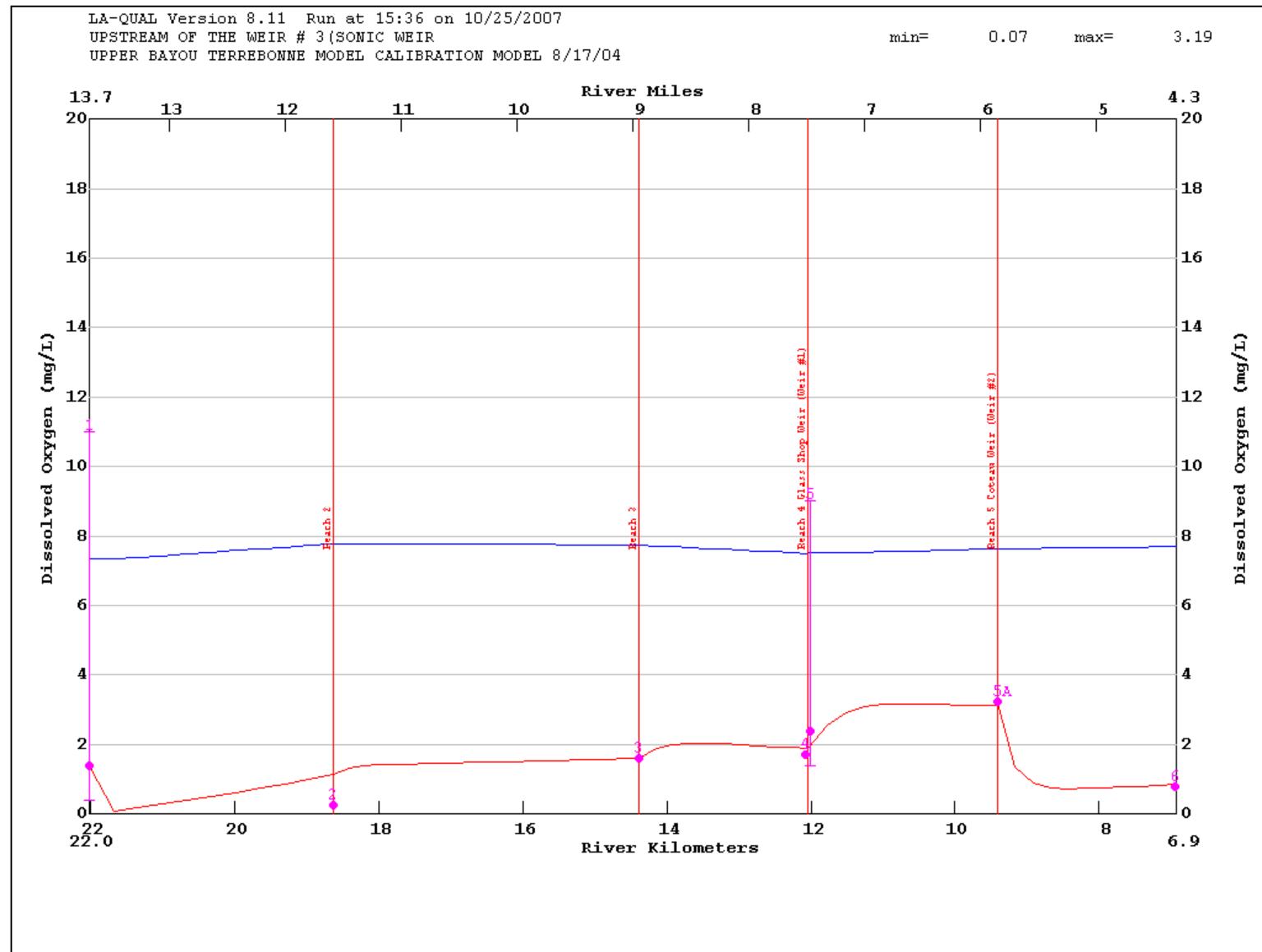
Calculation of the TMDL - Pounds per day						
Load description	WLA (lbs/day) (1)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	LA (lbs/day) (1)
Point Source loads	29					7
Natural Nonpoint Loads	0	0	0	0		0
Manmade Nonpoint Loads	417	190	137	421		1,164
						130
SUB-TOTAL	29	417	190	137	421	1,164
						137
TMDL = WLA + LA + MOS					1,330 lbs/day	

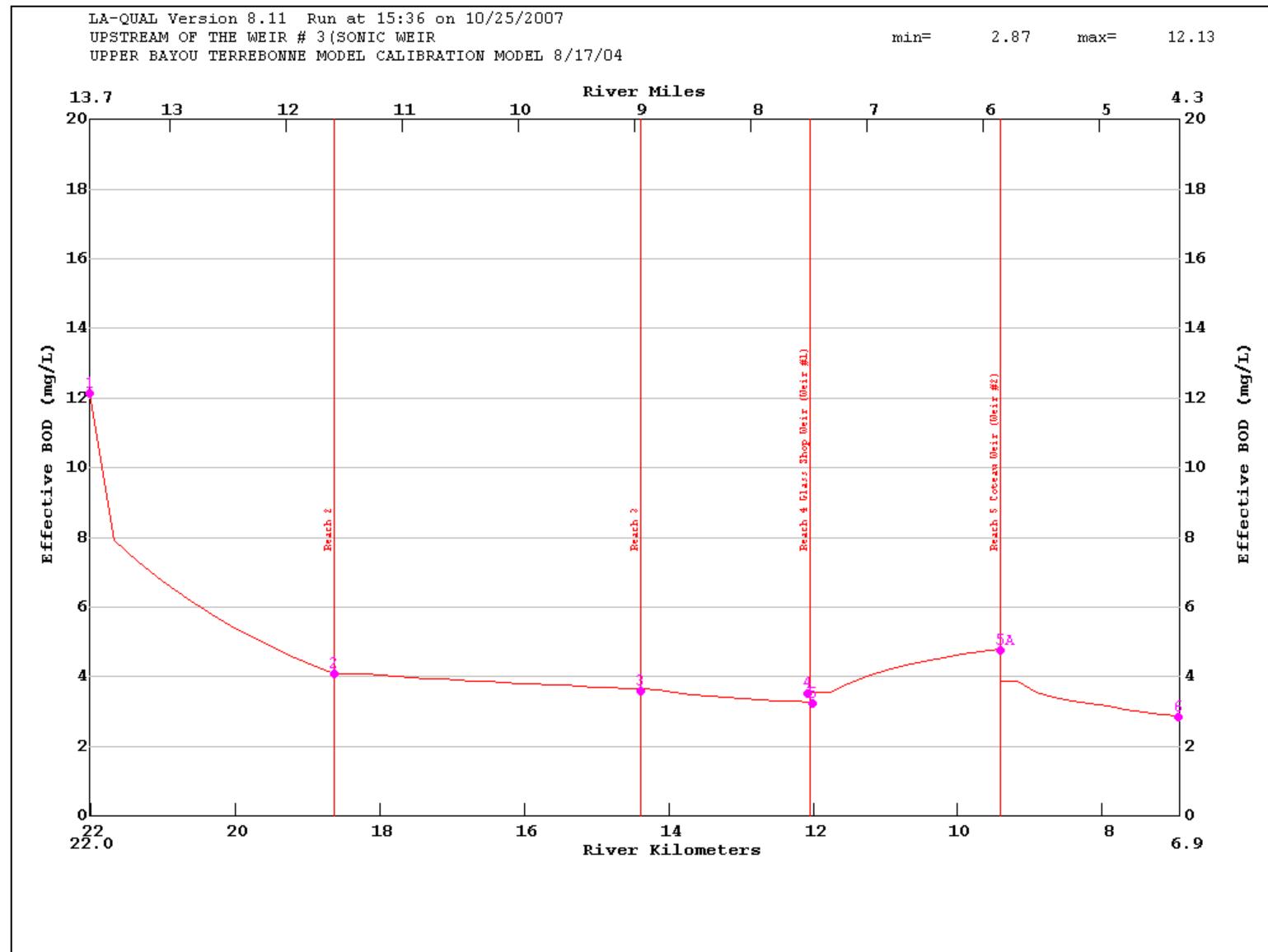
APPENDIX B – CALIBRATION MODEL INPUT AND OUTPUT DATA SETS
(Upper Terrebonne Model)

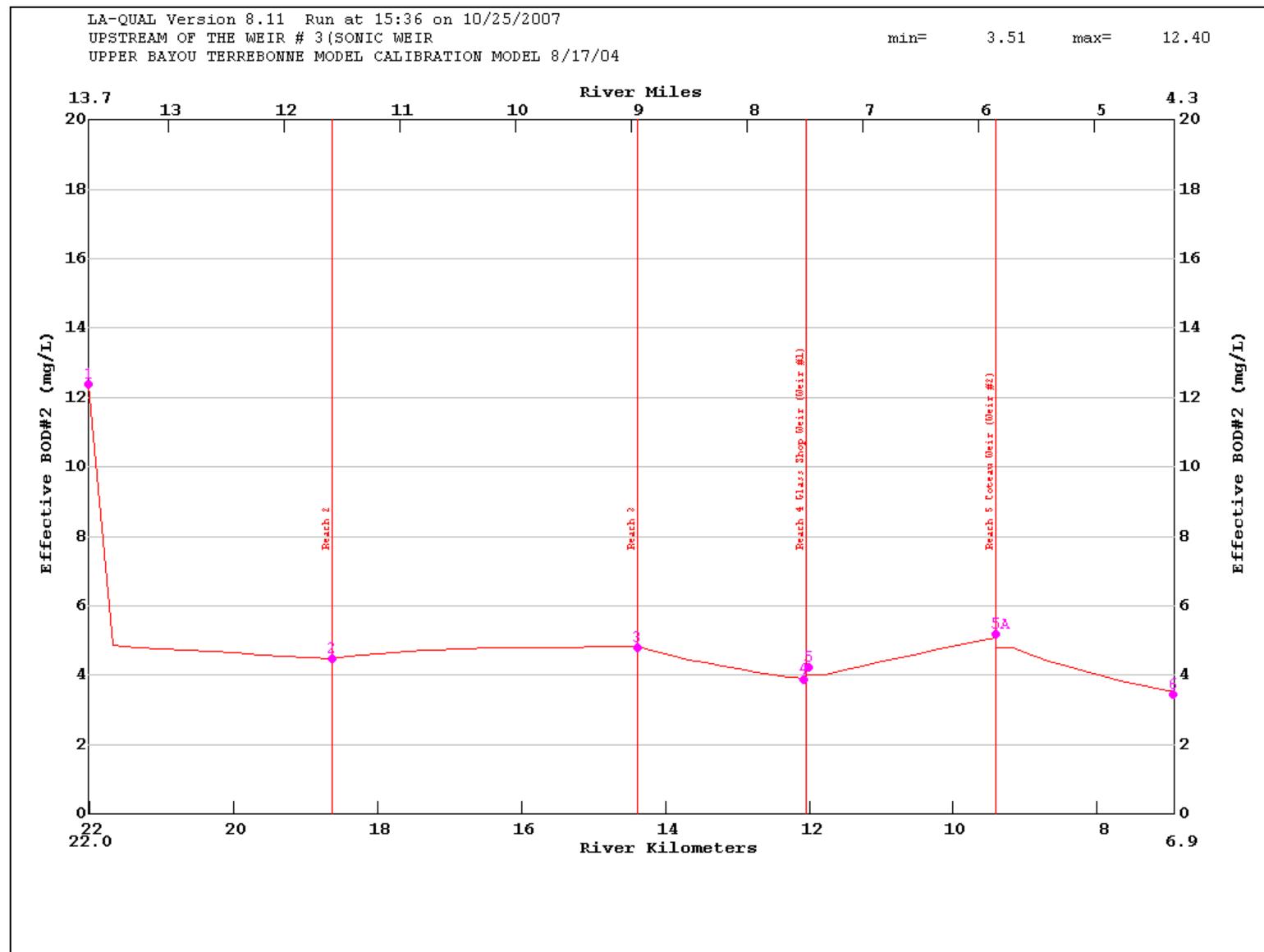
APPENDIX B1 – CALIBRATION OUTPUT GRAPHS, INPUT, OVERLAY AND
OUTPUT FILES

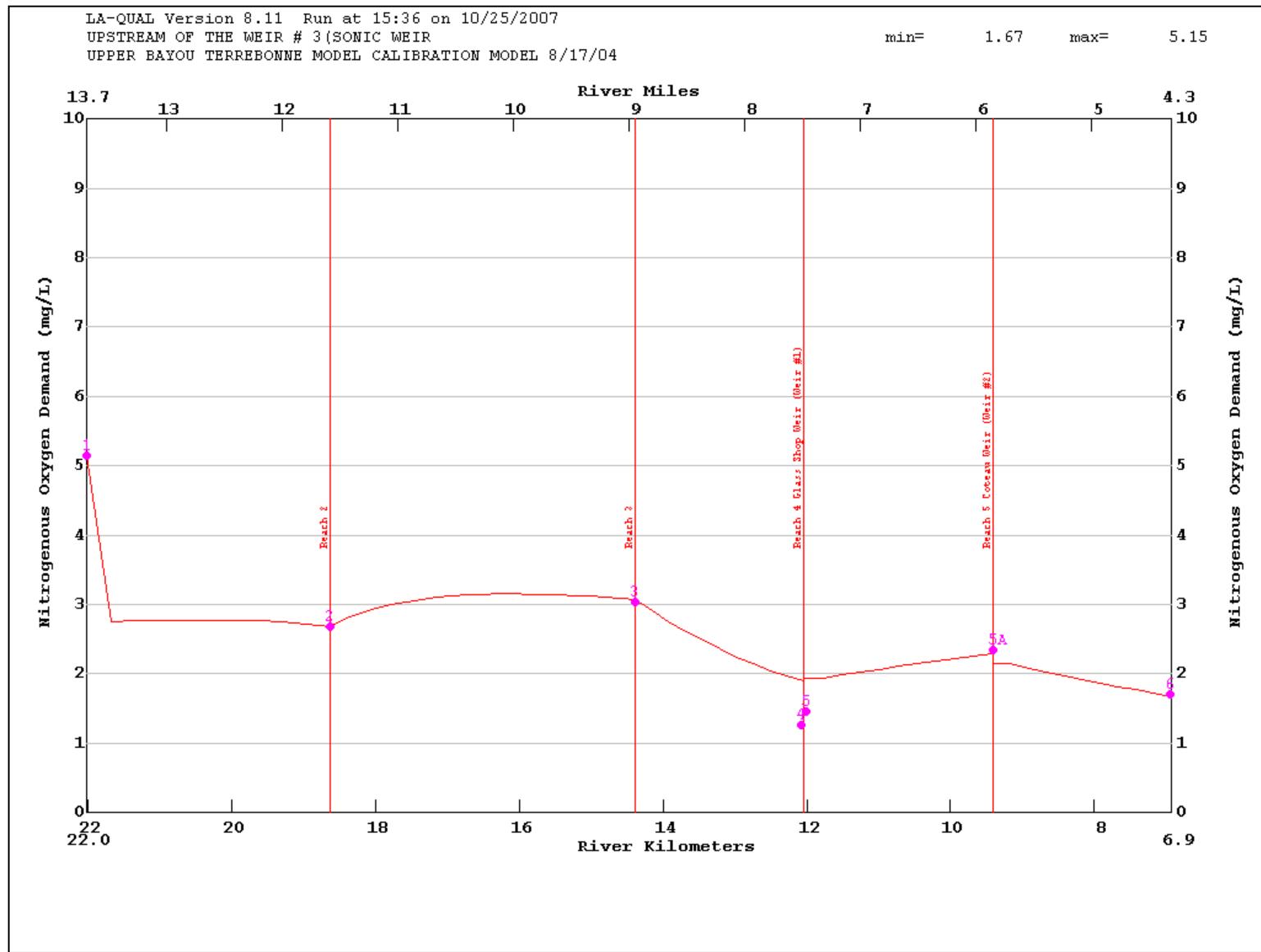
APPENDIX B2 –CALIBRATION WATER QUALITY INPUT DATA
JUSTIFICATIONS

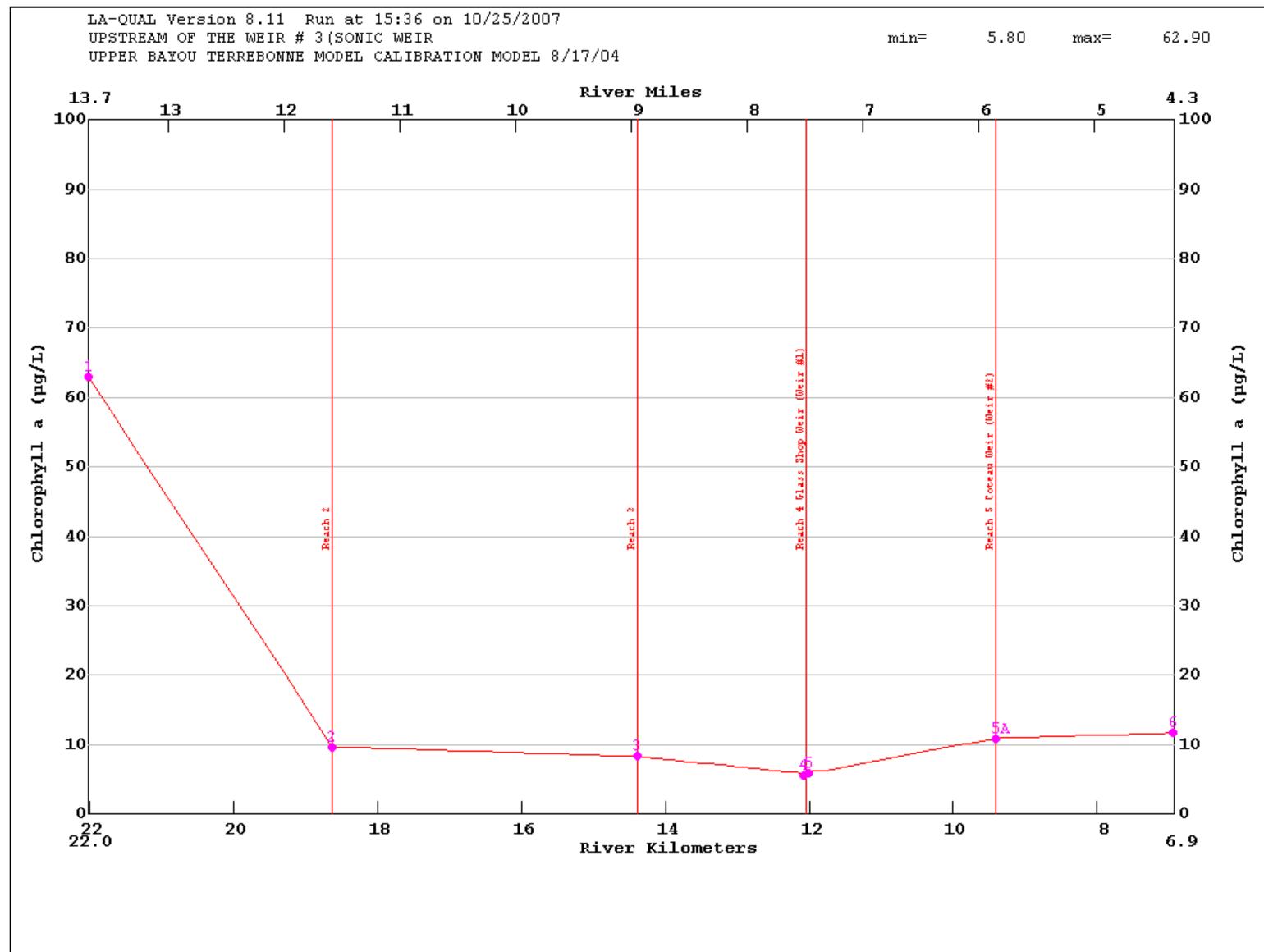
**APPENDIX B1 – CALIBRATION OUTPUT GRAPHS, INPUT, OVERLAY, AND
OUTPUT FILES
(UPPER TERREBONNE MODEL)**

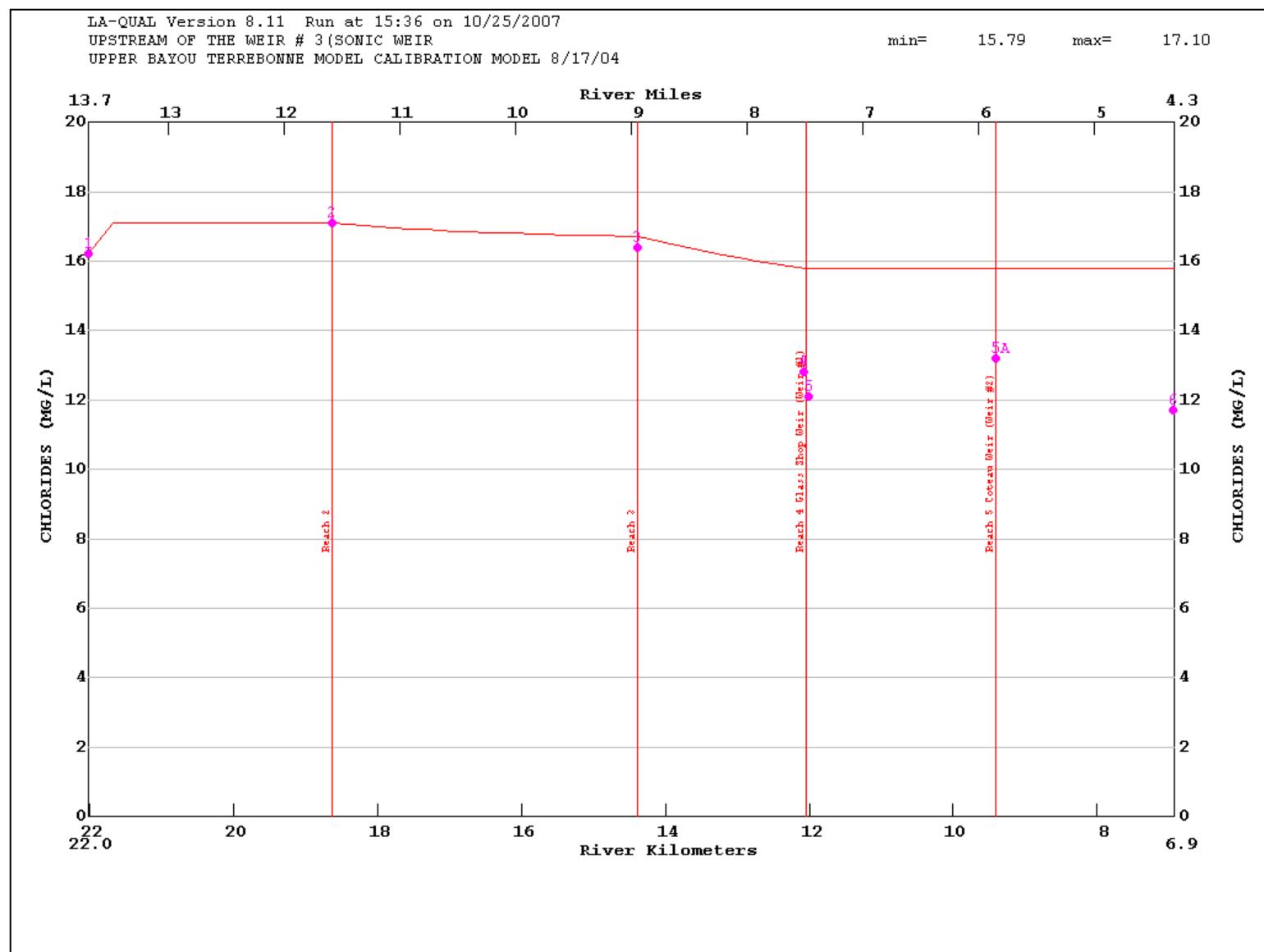


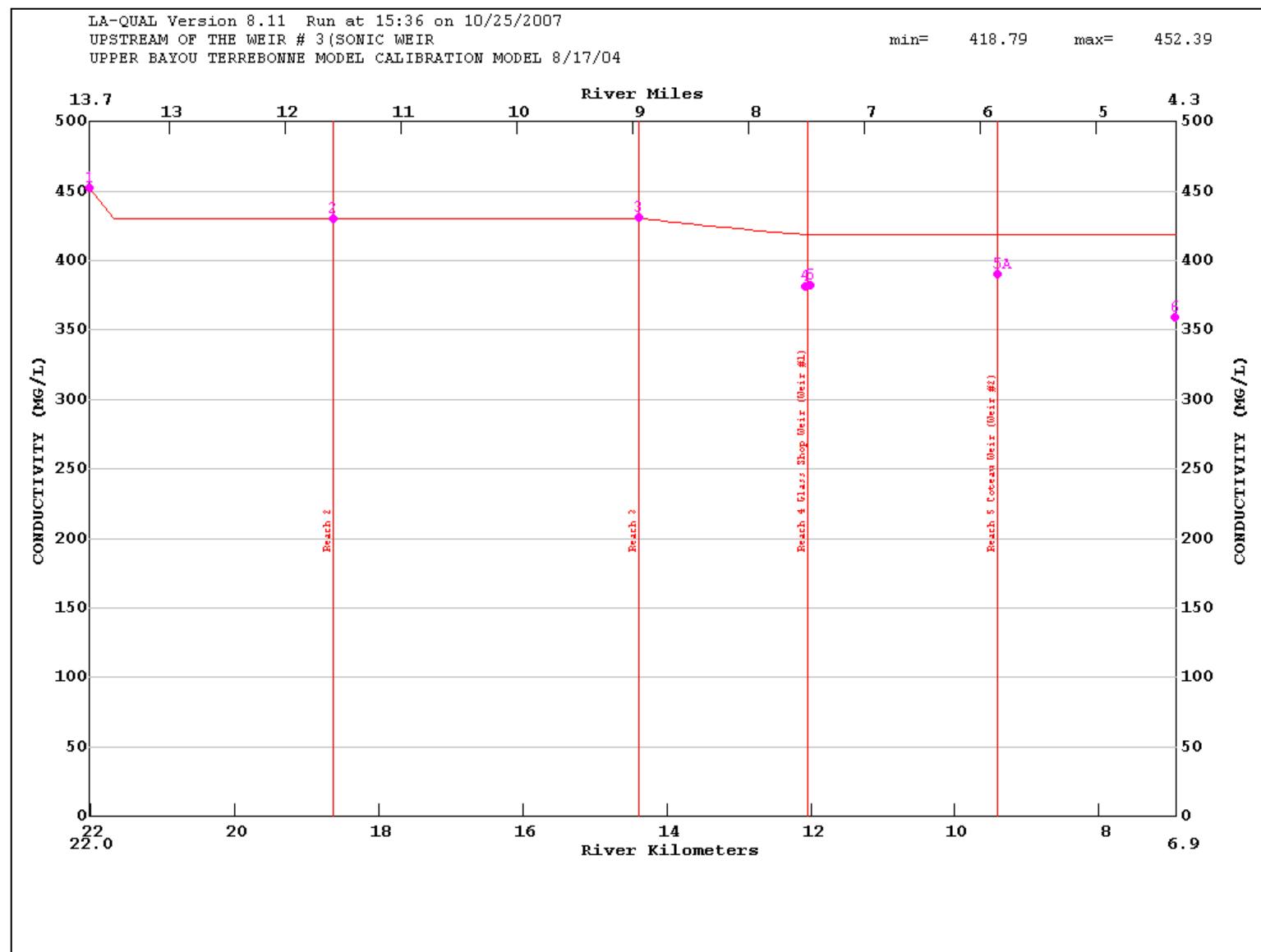


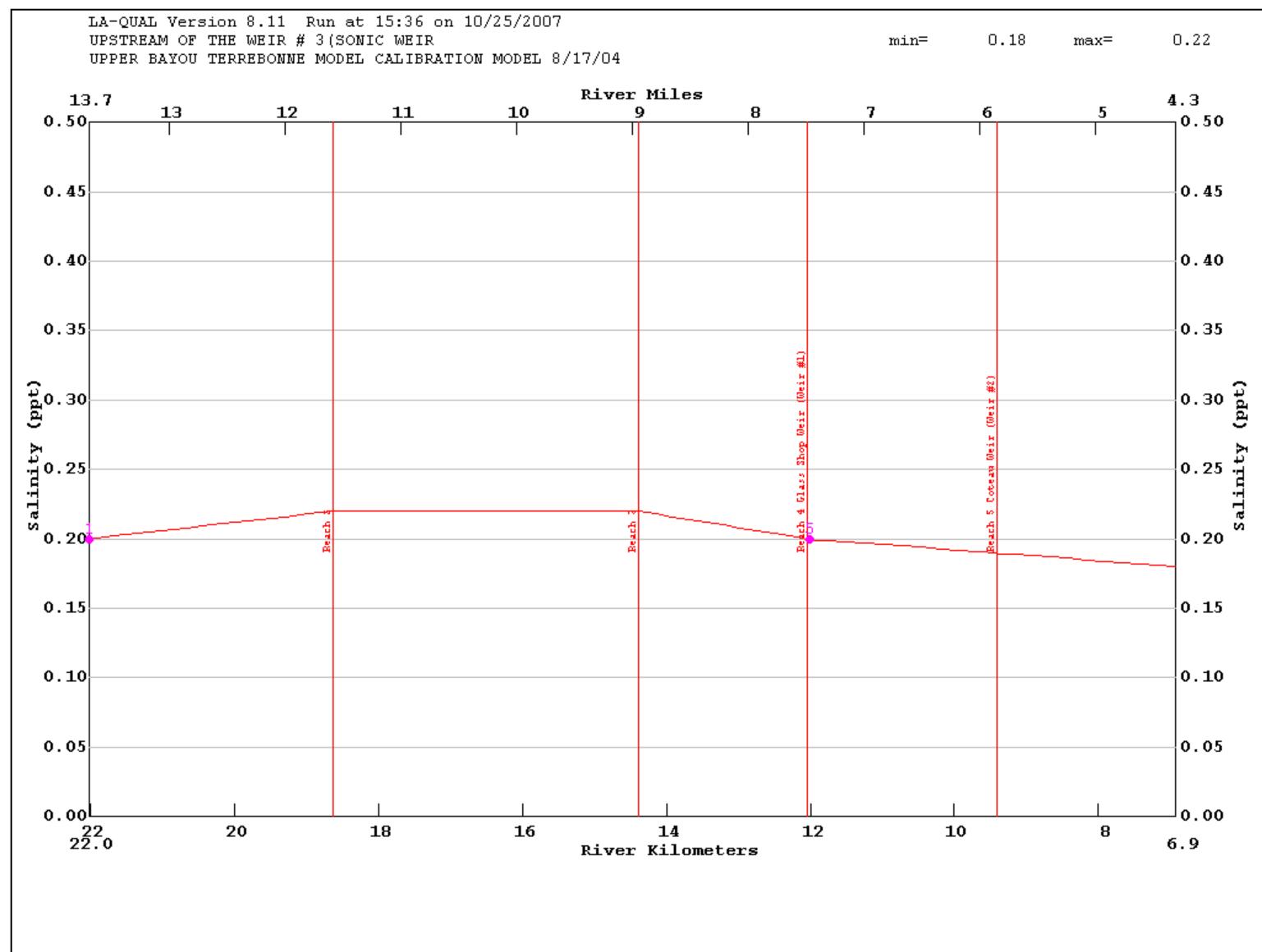


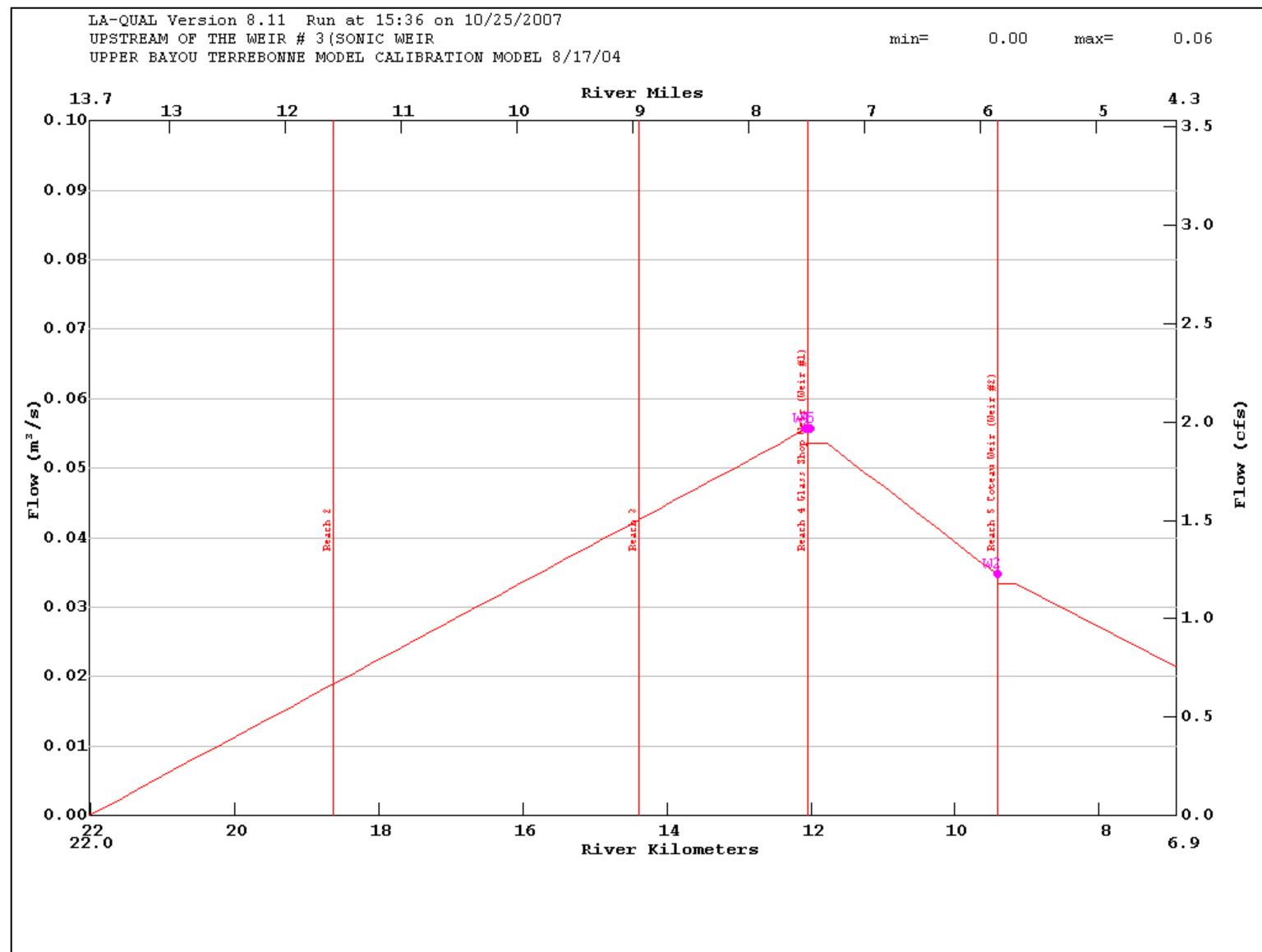


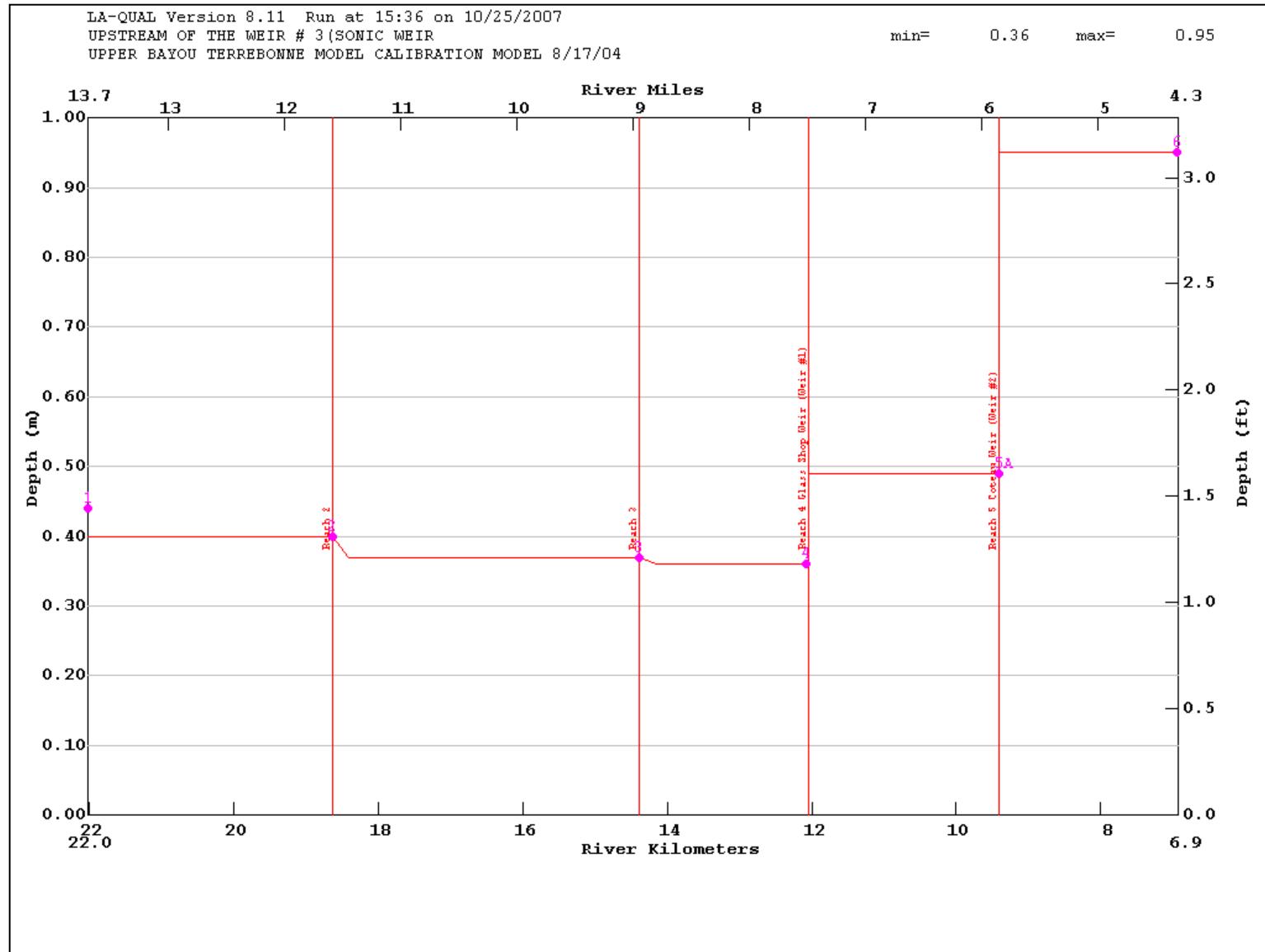


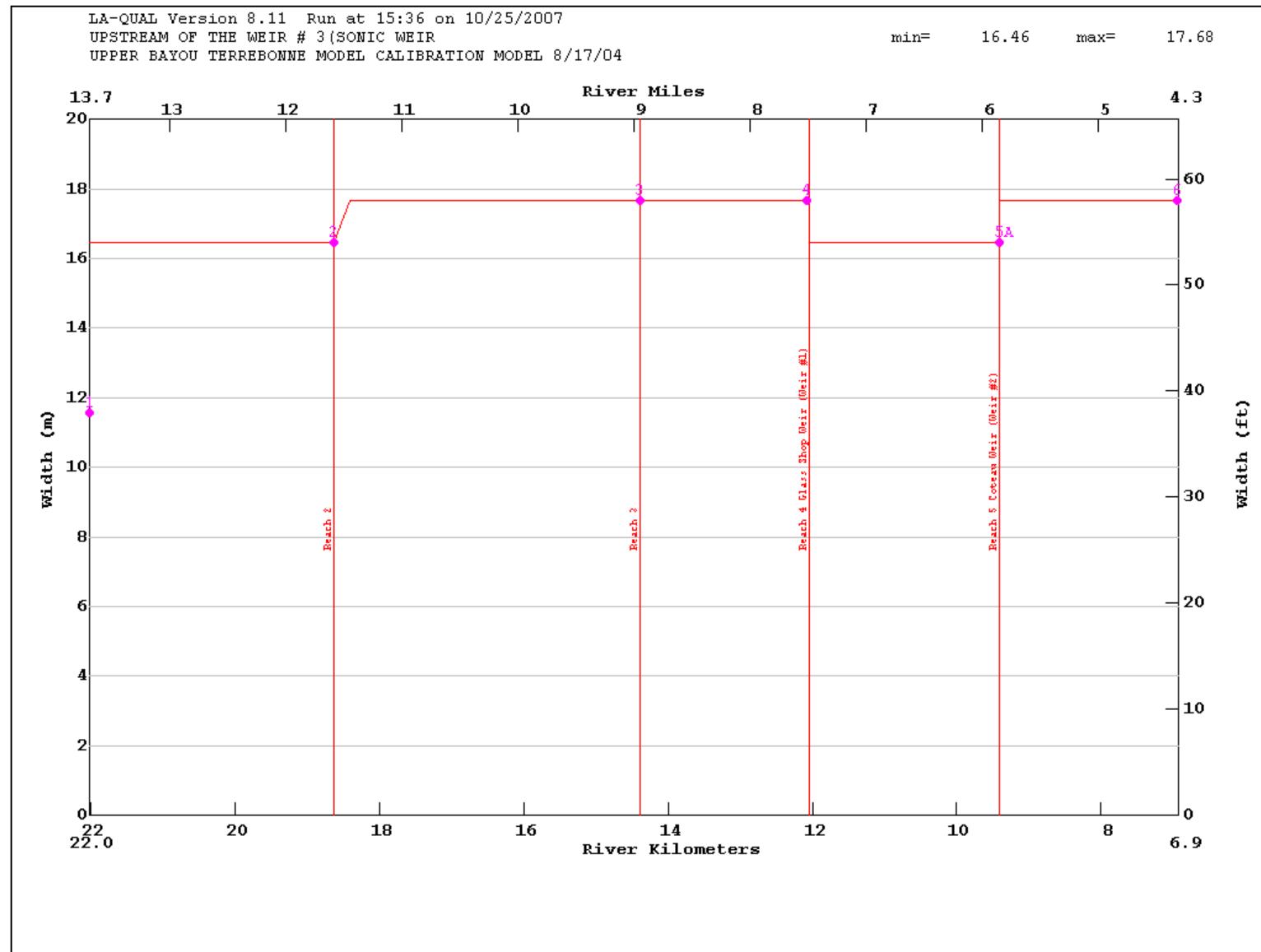


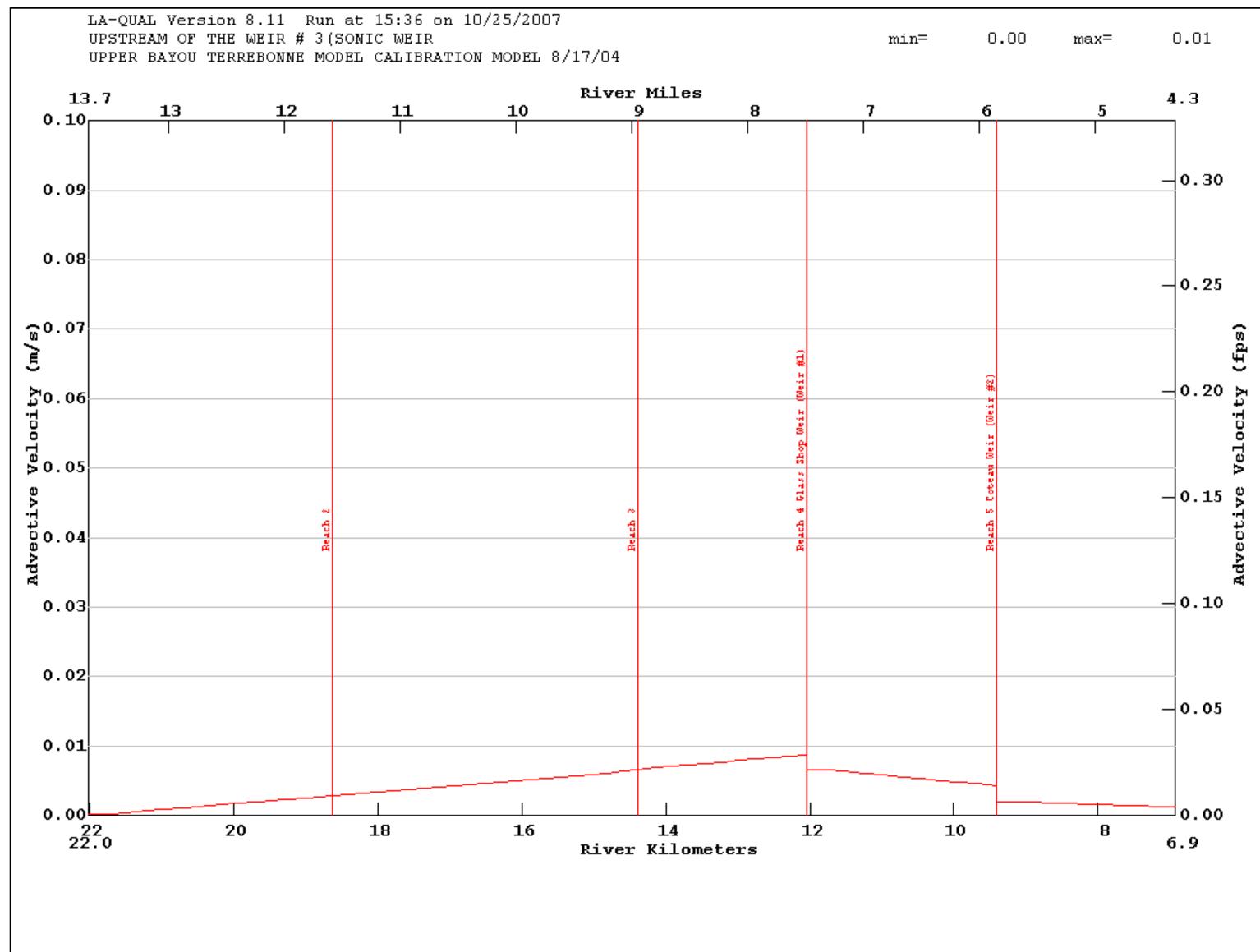


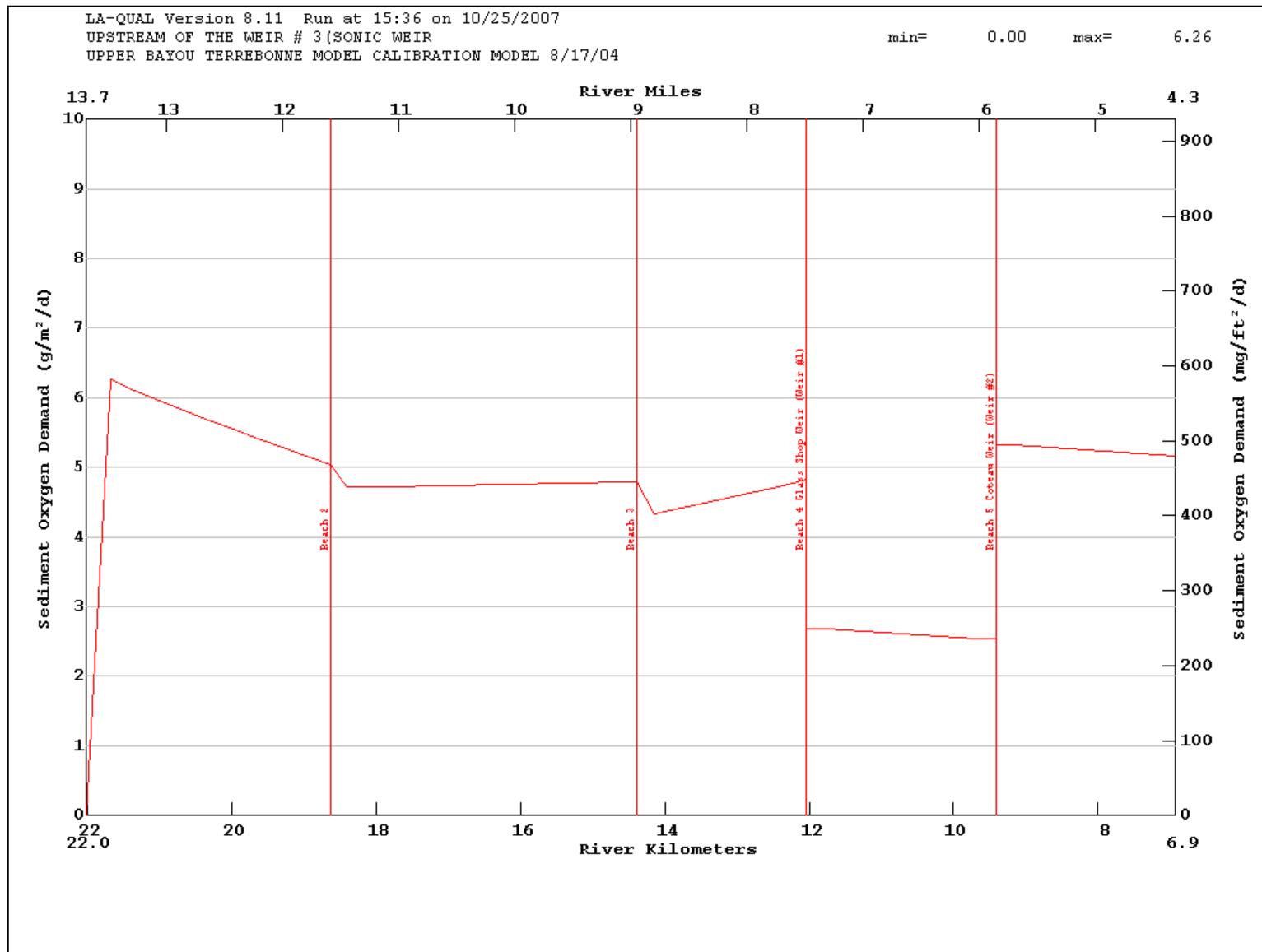


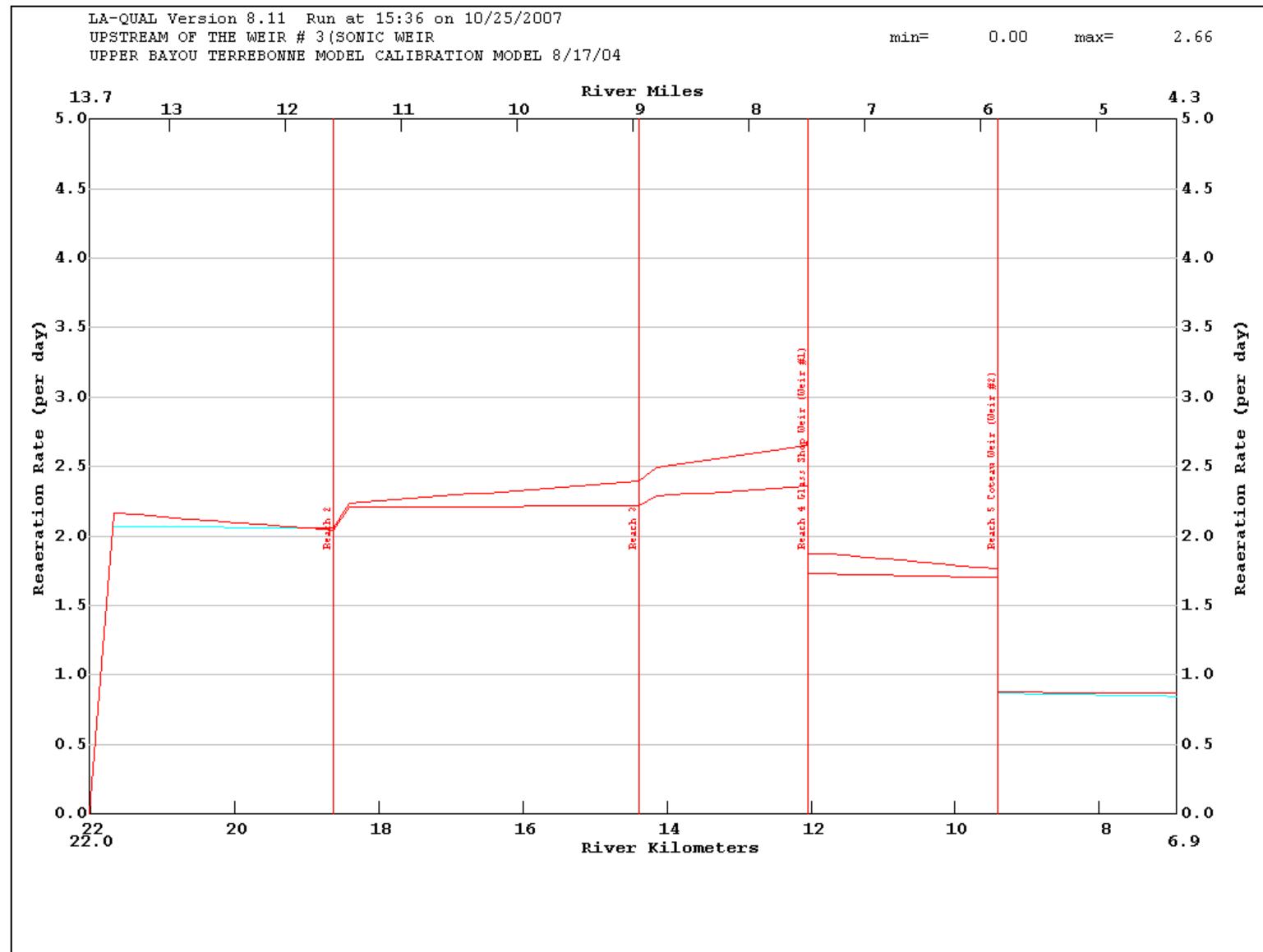












UPPER BAYOU TERREBONNE CALIBRATION MODEL

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

HYDR-1 5 0 0 17.68 0 0 0.95 0 0.03
ENDATA09

```

! Dispersion Data entered 10/31/04
!     ****Used default dispersion option = 1 -->dispersion = "a", i.e. dispersion = 0****
!00000000111111112222222333333344444444555555566666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
!          RCH TRANGE      "a"      "b"      "c"      "d"
HYDR-2    1    0.0      0.00      0.830      0      1.00
HYDR-2    2    0.0      0.00      0.830      0      1.00
HYDR-2    3    0.0      0.00      0.830      0      1.00
HYDR-2    4    0.0      0.00      0.830      0      1.00
HYDR-2    5    0.0      0.00      0.830      0      1.00
ENDATA10

! DATA ENTERED 9/19/04
! Initial conditions temp, DO, sal, and chl a revised 10/2/07 to match site located
! at/near the upstream end of each reach
!000000001111111122222223333333444444444555555566666666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
!          TEMP      SAL      DO                      CHL A      MACRO
INITIAL   1    32.05    0.20      1.40      0.00      0.00      62.90      0.0
INITIAL   2    28.25    0.22      0.24      0.00      0.000      0.00      9.70      0.0
INITIAL   3    28.53    0.22      1.59      0.00      0.000      0.00      8.30      0.0
INITIAL   4    30.43    0.20      5.15      0.00      0.000      0.00      5.80      0.0
INITIAL   5    29.40    0.19      3.25      0.00      0.000      0.00      10.90     0.0
ENDATA11

! Data Entered 9/19/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream
! end of each reach
!000000001111111122222223333333444444444555555566666666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
!          REAERATION           SOD BOD1DEC  SETT CON2SOD ANEARO BOD2DEC  SETT CON2SOD ANEARO
COEF-1    1    15    0.0    0.0      0.0      3.00      0.23      0.05      0.0      0.03      0.05      0.0      0.0
COEF-1    2    15    0.0    0.0      0.0      2.80      0.31      0.05      0.0      0.0      0.03      0.05      0.0      0.0
COEF-1    3    15    0.0    0.0      0.0      2.50      0.27      0.05      0.0      0.0      0.03      0.05      0.0      0.0
COEF-1    4    15    0.0    0.0      0.0      1.40      0.30      0.05      0.0      0.0      0.04      0.05      0.0      0.0
COEF-1    5    15    0.0    0.0      0.0      2.95      0.25      0.05      0.0      0.0      0.03      0.05      0.0      0.0
ENDATA12

```

```
! Data Entered 9/19/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream
! end of each reach
!0000000011111111222222233333333444444445555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!           NBODDEC NBODSETT
COEF-2    1     0.11   0.025    0.0     0.0     0.0     0.0
COEF-2    2     0.17   0.025    0.0     0.0     0.0     0.0
COEF-2    3     0.06   0.025    0.0     0.0     0.0     0.0
COEF-2    4     0.10   0.025    0.0     0.0     0.0     0.0
COEF-2    5     0.10   0.025    0.0     0.0     0.0     0.0
ENDATA13
ENDATA14
ENDATA15
! Incremental data input started on 10/2/2007 finito on 10/5/2007; no WQ data needed
! due to outflow conditions
!000000001111111122222223333333344444444555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!           R#      OUTFLOW     INFLOW      TEMP      SAL CONSERVI CONSERV2
INCR-1    1             0.01896    28.25     0.22     17.1    429.8
INCR-1    2             0.02364    28.53     0.22     16.4    430.8
INCR-1    3             0.01310    28.84     0.19     12.8    381.2
INCR-1    4     -0.02098
INCR-1    5     -0.01331
ENDATA16
!00000000111111111222222223333333344444444455555556666666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!           R#      DO      BOD1      NBOD      NH3      NO2      BOD2
INCR-2    1     0.24     4.10     2.68          4.47
INCR-2    2     1.59     3.60     3.04          4.78
INCR-2    3     1.71     3.52     1.27          3.89
INCR-2    4
INCR-2    5
ENDATA17
!00000000111111111222222223333333344444444455555556666666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!           R#      PHOS     CHLORA     COLI      NCM
```

INCR-3 1 9.7
INCR-3 2 8.3
INCR-3 3 5.6
INCR-3 4
INCR-3 5
ENDATA18
! Data modified 7/8/05; recalibrated 10/8/2007
!00000000111111112222222233333333444444445555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
NONPOINT 1 BOD1 NBOD DO BOD2
NONPOINT 1 18.5 2.2 8.0
NONPOINT 2 41.0 9.3 13.0
NONPOINT 3 22.0 0.0 3.5
NONPOINT 4 54.0 10.0 17.0
NONPOINT 5 24.0 1.5 9.8
ENDATA19
!ALL HEADWATER DATA HAS BEEN INPUT
!0000000011111111222222223333333344444444555555556666666677777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
HDWTR-1 1 BT01 FLOW TEMP SAL CL COND
HDWTR-1 1 0 0.00000 32.05 0.2 16.2 452.39
ENDATA20
!0000000011111111222222223333333344444444555555556666666677777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
HDWTR-2 1 DO BOD1 NBOD BOD2
HDWTR-2 1 1.4 12.13 5.15 0.0 0.0 12.40
ENDATA21
!0000000011111111222222223333333344444444555555556666666677777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
HDWTR-3 1 CHL A
HDWTR-3 1 0.0 62.9 0.0 0.0
ENDATA22
ENDATA23
ENDATA24
ENDATA25
ENDATA26
! LBC data entered 9/19/04; revised 10/16/07
LOWER BC TEMPERATURE = 28.90

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

```
LOWER BC SALINITY          =      0.18
LOWER BC CONSERVATIVE MATERIAL I   =     11.7
LOWER BC CONSERVATIVE MATERIAL II  =   359.60
LOWER BC DISSOLVED OXYGEN        =      0.77
LOWER BC BOD1                 =     2.85
LOWER BC BOD2                 =     3.44
LOWER BC PHOSPHORUS           =      0.00
LOWER BC CHLOROPHYLL A         =    11.70
LOWER BC COLIFORM              =      0.00
LOWER BC NBOD                  =     1.71
ENDATA27
! Data modified 7/8/05
!000000001111111112222222233333333444444445555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
DAM DATA    41      WEIR #1 Glass    1      0.65      0.0      0.2
DAM DATA    51      WEIR #2 Coteau    1      0.65      0.1      0.32
ENDATA28
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 5
PLOT RCH 1 2 3 4 5
ENDATA30
OVERLAY 1 UpperBTCalOverlay.txt
ENDATA31
```

UPPER BAYOU TERREBONNE OVERLAY FILE

STATION 1 KILOMETER	22.03		
01	32.05	Temperature	
02	0.2	Salinity	
03	16.2	Chlorides	
04	452.39	Conductivity	
05 0.40	1.40	11.00	DO
06	12.13	BOD 1	
13	62.90	Chlorophyll <u>a</u>	
16	12.40	BOD 2	
18	5.15	NBOD	
33	0.44	Depth	
34	11.58	Width	
STATION 2 KILOMETER	18.63		
03	17.1	Chlorides	
04	429.80	Conductivity	
05	0.24	DO	
06	4.10	BOD 1	
13	9.70	Chlorophyll <u>a</u>	
16	4.47	BOD 2	
18	2.68	NBOD	
33	0.40	Depth	
34	16.46	Width	
STATION 3 KILOMETER	14.39		
03	16.42	Chlorides	
04	430.80	Conductivity	
05	1.59	DO	
06	3.60	BOD 1	
13	8.30	Chlorophyll <u>a</u>	
16	4.78	BOD 2	
18	3.04	NBOD	
33	0.37	Depth	
34	17.68	Width	
STATION 4 KILOMETER	12.08		
03	12.8	Chlorides	
04	381.20	Conductivity	
05	1.71	DO	
06	3.52	BOD 1	
13	5.60	Chlorophyll <u>a</u>	
16	3.89	BOD 2	
18	1.27	NBOD	
31	0.0558	Flow	
33	0.36	Depth	
34	17.68	Width	
STATION W1 KILOMETER	12.04		
31	0.0558	Flow	
STATION 5 KILOMETER	12.01		
01	30.43	Temperature	
02	0.22	Salinity	
03	12.1	Chlorides	
04	382.73	Conductivity	
05 1.40	2.40	9.00	DO
06	3.24	BOD 1	
13	5.80	Chlorophyll <u>a</u>	
16	4.21	BOD 2	
18	1.46	NBOD	

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

31	0.0558	Flow
! 33	1.17	Depth
! 34	14.78	Width
STATION W2 KILOMETER	9.41	
31	0.0348	Flow
STATION 5A US of weir	9.40	
03	13.2	Chlorides
04	390.20	Conductivity
05	3.25	DO
06	4.76	BOD 1
13	10.90	Chlorophyll <u>a</u>
16	5.18	BOD 2
18	2.35	NBOD
33	0.49	Depth
34	16.45	Width
STATION 5A DS of weir	9.38	
! 31	0.0348	Flow
! 33	1.58	Depth
! 34	16.46	Width
STATION 6 KILOMETER	6.94	
03	11.7	Chlorides
04	359.6	Conductivity
05	0.77	DO
06	2.85	BOD 1
13	11.70	Chlorophyll <u>a</u>
16	3.44	BOD 2
18	1.71	NBOD
! 31	0.20036	Flow
33	0.95	Depth
34	17.68	Width
36	0.01192	Mean Velocity
MRK 18.63	Reach 2	
MRK 14.39	Reach 3	
MRK 12.04	Reach 4 Glass Shop Weir (Weir #1)	
MRK 9.41	Reach 5 Coteau Weir (Weir #2)	
END		

UPPER BAYOU TERREBONNE OUTPUT FILE

LA-QUAL Version 8.11

Louisiana Department of Environmental Quality

Input file is C:\AA_DAILY WORKING FOLDER\AA_TRANSFER BTERR DATASET\LAQUAL CAL REVIEW_09182007\Reported Cal Model Rev\UpBTerrCalIrevlowflow5R.txt
Output produced at 08:59 on 10/23/2007

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE CONTROL TITLES

TITLE01 UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
TITLE02 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)
CONTROL YES METRIC UNITS
ENDATA01

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE MODEL OPTION

MODOPT01	NO	TEMPERATURE	
MODOPT02	NO	SALINITY	
MODOPT03	YES	CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MODOPT04	YES	CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN MG/L
MODOPT05	YES	DISSOLVED OXYGEN	
MODOPT06	YES	BOD1	
MODOPT07	YES	BOD2	
MODOPT08	YES	NBOD OXYGEN DEMAND	IN MG/L
MODOPT09	NO	PHOSPHORUS	
MODOPT10	NO	CHLOROPHYLL A	
MODOPT11	NO	MACROPHYTES	
MODOPT12	NO	COLIFORM	
MODOPT13	NO	NONCONSERVATIVE MATERIAL = NBOD	IN MG/L
ENDATA02			

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	=	VALUE
PROGRAM	KL MINIMUM	=	0.70000 meters/day
PROGRAM	MAXIMUM ITERATION LIMIT	=	200.00000
PROGRAM	HYDRAULIC CALCULATION METHOD	=	2.00000 (widths and depths)
PROGRAM	TIDE HEIGHT	=	0.00000 meters
PROGRAM	TIDAL PERIOD	=	25.00000 hours
PROGRAM	EFFECTIVE BOD DUE TO ALGAE	=	0.01000 mg/L BOD per ug/L
chl a			
PROGRAM	ALGAE OXYGEN PRODUCTION RATE	=	0.00000 mg O/ug chl a/day
PROGRAM	INHIBITION CONTROL VALUE	=	3.00000 (inhibit all rates)
but SOD)			
PROGRAM	OCEAN EXCHANGE RATIO	=	0.00000
PROGRAM	SETTLING RATE UNITS	=	2.00000 (values entered as per day)
ENDATA03			

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE RATE CODE THETA VALUE

ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA06

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH	END REACH	ELEM LENGTH	REACH LENGTH	ELEMS PER RCH	BEGIN ELEM	END ELEM	
				km	km	km	km		NUM	NUM	
REACH ID	1	BT	BT01 & BT-02	22.03	TO	18.63	0.3400	3.40	10	1	10
REACH ID	2	BT	BT02 & BT-03	18.63	TO	14.39	0.2120	4.24	20	11	30
REACH ID	3	BT	BT03 TO GLASS SHOP WEIR	14.39	TO	12.04	0.2350	2.35	10	31	40
REACH ID	4	BT	GLASS SHOP WEIR TO COTEAU WEIR	12.04	TO	9.41	0.2630	2.63	10	41	50
REACH ID	5	BT	COTEAU WEIR TO SONIC WEIR	9.41	TO	6.93	0.2480	2.48	10	51	60

ENDATA08

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
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Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

HYDR-1	1	BT	0.000	0.000	16.460	0.000	0.000	0.400	0.00000	0.030
HYDR-1	2	BT	0.000	0.000	17.680	0.000	0.000	0.370	0.00000	0.030
HYDR-1	3	BT	0.000	0.000	17.680	0.000	0.000	0.360	0.00000	0.030
HYDR-1	4	BT	0.000	0.000	16.460	0.000	0.000	0.490	0.00000	0.030
HYDR-1	5	BT	0.000	0.000	17.680	0.000	0.000	0.950	0.00000	0.030
ENDATA09										

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"	
HYDR	1	BT	0.00	0.000	0.830	0.000	1.000		
HYDR	2	BT	0.00	0.000	0.830	0.000	1.000		
HYDR	3	BT	0.00	0.000	0.830	0.000	1.000		
HYDR	4	BT	0.00	0.000	0.830	0.000	1.000		
HYDR	5	BT	0.00	0.000	0.830	0.000	1.000		
ENDATA10									

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD	TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	BT	32.05	0.20	1.40	0.00	0.00	0.00	62.90	0.00	
INITIAL	2	BT	28.25	0.22	0.24	0.00	0.00	0.00	9.70	0.00	
INITIAL	3	BT	28.53	0.22	1.59	0.00	0.00	0.00	8.30	0.00	
INITIAL	4	BT	30.43	0.20	5.15	0.00	0.00	0.00	5.80	0.00	
INITIAL	5	BT	29.40	0.19	3.25	0.00	0.00	0.00	10.90	0.00	
ENDATA11											

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m ² /d	BOD DECAY per day	BOD SETT m/d	BOD TO SOD	ANAER BOD2 DECAY per day	BOD2 SETT m/d	BOD2 TO SOD	ANAER BOD2 DECAY per day	
COEF-1	1	BT	15 LOUISIANA	0.000	0.000	0.000	3.000	0.230	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	2	BT	15 LOUISIANA	0.000	0.000	0.000	2.800	0.310	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	3	BT	15 LOUISIANA	0.000	0.000	0.000	2.500	0.270	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	4	BT	15 LOUISIANA	0.000	0.000	0.000	1.400	0.300	0.050	0.000	0.000	0.040	0.050	0.000	0.000
COEF-1	5	BT	15 LOUISIANA	0.000	0.000	0.000	2.950	0.250	0.050	0.000	0.000	0.030	0.050	0.000	0.000
ENDATA12															

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD DECA	NBOD SETT	ORGN TO NH3	CONV SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1	BT	0.110	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	2	BT	0.170	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	3	BT	0.060	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	4	BT	0.100	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	5	BT	0.100	0.025	0.000		0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING
ENDATA14											

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
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ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	BT	0.00000	0.01896	28.25	0.22	17.10	429.80	0.00558	0.00000
INCR-1	2	BT	0.00000	0.02364	28.53	0.22	16.40	430.80	0.00558	0.00000
INCR-1	3	BT	0.00000	0.01310	28.84	0.19	12.80	381.20	0.00557	0.00000
INCR-1	4	BT	-0.02098	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00798
INCR-1	5	BT	-0.01331	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00537

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD	NBOD	BOD#2
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Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

INCR-2	1	BT	0.24	4.10	2.68	0.00	0.00	4.47
INCR-2	2	BT	1.59	3.60	3.04	0.00	0.00	4.78
INCR-2	3	BT	1.71	3.52	1.27	0.00	0.00	3.89
INCR-2	4	BT	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	5	BT	0.00	0.00	0.00	0.00	0.00	0.00
ENDATA17								

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM
INCR-3	1	BT	0.00	9.70	0.00	0.00
INCR-3	2	BT	0.00	8.30	0.00	0.00
INCR-3	3	BT	0.00	5.60	0.00	0.00
INCR-3	4	BT	0.00	0.00	0.00	0.00
INCR-3	5	BT	0.00	0.00	0.00	0.00
ENDATA18						

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT	1	BT	18.50	2.20	0.00	0.00	0.00	8.00
NONPOINT	2	BT	41.00	9.30	0.00	0.00	0.00	13.00
NONPOINT	3	BT	22.00	0.00	0.00	0.00	0.00	3.50
NONPOINT	4	BT	54.00	10.00	0.00	0.00	0.00	17.00
NONPOINT	5	BT	24.00	1.50	0.00	0.00	0.00	9.80
ENDATA19								

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L	
HDWTR-1	1	BT01	0	0.00000	0.000	32.05	0.20	16.200	452.390	0.00
ENDATA20										

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L		BOD#2 mg/L
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Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

HDWTR-2 1 BT01 1.40 12.13 5.15 0.00 0.00 12.40
ENDATA21

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE ELEMENT NAME PHOS CHL A COLI NCM
mg/L mg/L mg/L mg/L

HDWTR-3 1 BT01 0.00 62.90 0.00 0.00
ENDATA22

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE JUNCTION UPSTRM RIVER NAME
ELEMENT ELEMENT ELEMENT KILOM

ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE ELEMENT RKILO NAME FLOW FLOW FLOW TEMP SALIN CM-I CM-II
m³/s cfs MGD deg C ppt MG/L MG/L

ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE ELEMENT NAME DO BOD % BOD %
BOD#2 mg/L mg/L RMVL NBOD NITRIF
mg/L mg/L mg/L mg/L mg/L

ENDATA25

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE ELEMENT NAME PHOS CHL A COLI NCM
mg/L mg/L mg/L mg/L

ENDATA26

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 28.900 deg C
LOWER BC	SALINITY	= 0.180 ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 11.700 MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 359.600 MG/L
LOWER BC	DISSOLVED OXYGEN	= 0.770 mg/L
LOWER BC	BOD1	= 2.850 mg/L
LOWER BC	BOD2	= 3.440 mg/L
LOWER BC	PHOSPHORUS	= 0.000 mg/L
LOWER BC	CHLOROPHYLL A	= 11.700 µg/L
LOWER BC	COLIFORM	= 0.000 #/100 mL
LOWER BC	NBOD	= 1.710 mg/L
ENDATA27		

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
DAM DATA	41	WEIR #1 Glass	1	0.650	0.000	0.200
DAM DATA	51	WEIR #2 Coteau	1	0.650	0.100	0.320
ENDATA28						

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
ENDATA29									

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 5
PLOT RCH 1 2 3 4 5
ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

OVERLAY 1 UpperBTCalOverlay.txt

ENDATA31

.....NO ERRORS DETECTED IN INPUT DATA
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED
GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

FINAL REPORT BT01
 REACH NO. 1 BT01 & BT-02

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
1	HDWTR	0.00000	32.05	0.20	16.20	452.39	1.40	11.50	12.40	12.13	12.40	5.15	0.00	0.00	0.00	62.90	0.00	0.00
EACH	INCR	0.00190	28.25	0.22	17.10	429.80	0.24	4.10	4.47			2.68	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	22.03	21.69	0.00190	0.0	0.00029	13.66	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.000
2	21.69	21.35	0.00379	0.0	0.00058	6.83	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.001
3	21.35	21.01	0.00569	0.0	0.00086	4.55	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.001
4	21.01	20.67	0.00758	0.0	0.00115	3.42	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.001
5	20.67	20.33	0.00948	0.0	0.00144	2.73	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.001
6	20.33	19.99	0.01138	0.0	0.00173	2.28	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.002
7	19.99	19.65	0.01327	0.0	0.00202	1.95	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.002
8	19.65	19.31	0.01517	0.0	0.00230	1.71	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.002
9	19.31	18.97	0.01706	0.0	0.00259	1.52	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.003
10	18.97	18.63	0.01896	0.0	0.00288	1.37	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.003

TOT		40.02		22385.60	55963.99	
Avg		0.0010	0.40	16.46		6.58
CUM		40.02				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da	
1	21.690	7.34	2.17	0.01	0.07	0.00	0.00	0.07	0.00	6.26	6.26	6.26	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	21.350	7.39	2.15	0.03	0.07	0.00	0.00	0.07	0.00	6.11	6.11	6.11	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	21.010	7.43	2.14	0.05	0.06	0.00	0.01	0.06	0.00	5.96	5.96	5.96	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	20.670	7.48	2.12	0.07	0.06	0.00	0.01	0.06	0.00	5.82	5.82	5.82	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	20.330	7.53	2.11	0.09	0.06	0.00	0.01	0.06	0.00	5.68	5.68	5.68	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	19.990	7.58	2.10	0.11	0.06	0.00	0.01	0.06	0.00	5.55	5.55	5.55	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	19.650	7.63	2.08	0.13	0.06	0.00	0.02	0.06	0.00	5.42	5.42	5.42	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8	19.310	7.68	2.07	0.15	0.06	0.00	0.02	0.06	0.00	5.29	5.29	5.29	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	18.970	7.73	2.06	0.17	0.06	0.00	0.02	0.06	0.00	5.17	5.17	5.17	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10	18.630	7.78	2.06	0.19	0.06	0.00	0.02	0.06	0.00	5.04	5.04	5.04	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
AVG	20	DEG C RATE		1.75	0.23	0.05	0.00	0.03	0.05	0.00	3.00			0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
1	21.690	31.67	0.20	17.10	429.80	0.07	7.35	4.86	7.92	4.86	2.76	0.00	0.00	0.00	57.58	0.00	0.	0.00	
2	21.350	31.29	0.20	17.10	429.80	0.17	6.79	4.81	7.31	4.81	2.77	0.00	0.00	0.00	52.26	0.00	0.	0.00	
3	21.010	30.91	0.21	17.10	429.80	0.28	6.28	4.77	6.75	4.77	2.77	0.00	0.00	0.00	46.94	0.00	0.	0.00	
4	20.670	30.53	0.21	17.10	429.80	0.39	5.83	4.72	6.24	4.72	2.78	0.00	0.00	0.00	41.62	0.00	0.	0.00	
5	20.330	30.15	0.21	17.10	429.80	0.50	5.42	4.68	5.78	4.68	2.78	0.00	0.00	0.00	36.30	0.00	0.	0.00	
6	19.990	29.77	0.21	17.10	429.80	0.62	5.06	4.64	5.37	4.64	2.78	0.00	0.00	0.00	30.98	0.00	0.	0.00	
7	19.650	29.39	0.21	17.10	429.80	0.74	4.74	4.60	5.00	4.60	2.77	0.00	0.00	0.00	25.66	0.00	0.	0.00	
8	19.310	29.01	0.22	17.10	429.80	0.86	4.46	4.56	4.67	4.56	2.75	0.00	0.00	0.00	20.34	0.00	0.	0.00	
9	18.970	28.63	0.22	17.10	429.80	0.99	4.21	4.52	4.36	4.52	2.72	0.00	0.00	0.00	15.02	0.00	0.	0.00	
10	18.630	28.25	0.22	17.10	429.80	1.13	3.98	4.48	4.08	4.48	2.68	0.00	0.00	0.00	9.70	0.00	0.	0.00	

FINAL REPORT BT01
 REACH NO. 2 BT02 & BT-03

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
11	UPR RCH	0.01896	28.25	0.22	17.10	429.80	1.13	3.98	4.48	4.08	4.48	2.68	0.00	0.00	0.00	9.70	0.00	0.00
EACH	INCR	0.00118	28.53	0.22	16.40	430.80	1.59	3.60	4.78			3.04	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
11	18.63	18.42	0.02014	0.0	0.00308	0.80	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.003
12	18.42	18.21	0.02132	0.0	0.00326	0.75	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.003
13	18.21	17.99	0.02251	0.0	0.00344	0.71	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.003
14	17.99	17.78	0.02369	0.0	0.00362	0.68	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
15	17.78	17.57	0.02487	0.0	0.00380	0.65	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
16	17.57	17.36	0.02605	0.0	0.00398	0.62	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
17	17.36	17.15	0.02723	0.0	0.00416	0.59	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
18	17.15	16.93	0.02842	0.0	0.00434	0.56	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
19	16.93	16.72	0.02960	0.0	0.00452	0.54	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
20	16.72	16.51	0.03078	0.0	0.00471	0.52	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
21	16.51	16.30	0.03196	0.0	0.00489	0.50	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
22	16.30	16.09	0.03314	0.0	0.00507	0.48	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
23	16.09	15.87	0.03433	0.0	0.00525	0.47	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
24	15.87	15.66	0.03551	0.0	0.00543	0.45	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
25	15.66	15.45	0.03669	0.0	0.00561	0.44	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
26	15.45	15.24	0.03787	0.0	0.00579	0.42	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
27	15.24	15.03	0.03905	0.0	0.00597	0.41	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
28	15.03	14.81	0.04024	0.0	0.00615	0.40	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
29	14.81	14.60	0.04142	0.0	0.00633	0.39	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
30	14.60	14.39	0.04260	0.0	0.00651	0.38	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.007

TOT		10.76		27736.38	74963.20	
AVG		0.0046	0.37	17.68		6.54
CUM		50.79				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
11	18.418	7.78	2.23	0.30	0.06	0.00	0.03	0.06	0.00	4.71	4.71	4.71	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	18.206	7.78	2.24	0.31	0.06	0.00	0.03	0.06	0.00	4.72	4.72	4.72	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	17.994	7.78	2.25	0.32	0.06	0.00	0.03	0.06	0.00	4.72	4.72	4.72	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	17.782	7.78	2.26	0.32	0.06	0.00	0.03	0.06	0.00	4.72	4.72	4.72	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	17.570	7.77	2.27	0.32	0.06	0.00	0.03	0.06	0.00	4.73	4.73	4.73	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	17.358	7.77	2.28	0.33	0.06	0.00	0.03	0.06	0.00	4.73	4.73	4.73	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	17.146	7.77	2.29	0.33	0.06	0.00	0.03	0.06	0.00	4.74	4.74	4.74	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	16.934	7.77	2.29	0.33	0.06	0.00	0.03	0.06	0.00	4.74	4.74	4.74	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	16.722	7.77	2.30	0.34	0.06	0.00	0.03	0.06	0.00	4.75	4.75	4.75	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	16.510	7.76	2.31	0.34	0.06	0.00	0.03	0.06	0.00	4.75	4.75	4.75	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	16.298	7.76	2.32	0.34	0.06	0.00	0.03	0.06	0.00	4.75	4.75	4.75	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	16.086	7.76	2.33	0.34	0.06	0.00	0.03	0.06	0.00	4.76	4.76	4.76	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	15.874	7.76	2.34	0.35	0.06	0.00	0.03	0.06	0.00	4.76	4.76	4.76	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	15.662	7.76	2.35	0.35	0.06	0.00	0.03	0.06	0.00	4.77	4.77	4.77	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	15.450	7.75	2.36	0.35	0.06	0.00	0.03	0.06	0.00	4.77	4.77	4.77	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	15.238	7.75	2.36	0.36	0.06	0.00	0.03	0.06	0.00	4.77	4.77	4.77	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	15.026	7.75	2.37	0.36	0.06	0.00	0.03	0.06	0.00	4.78	4.78	4.78	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	14.814	7.75	2.38	0.36	0.06	0.00	0.03	0.06	0.00	4.78	4.78	4.78	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	14.602	7.75	2.39	0.36	0.06	0.00	0.04	0.06	0.00	4.79	4.79	4.79	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	14.390	7.75	2.40	0.37	0.06	0.00	0.04	0.06	0.00	4.79	4.79	4.79	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avg	20	DEG C	RATE	1.98	0.31	0.05	0.00	0.03	0.05	0.00	2.80			0.17	0.03	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
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11	18.418	28.26	0.22	17.06	429.86	1.33	4.00	4.54	4.09	4.54	2.80	0.00	0.00	0.00	0.00	9.63	0.00	0.	0.00
12	18.206	28.28	0.22	17.02	429.91	1.39	3.97	4.59	4.07	4.59	2.88	0.00	0.00	0.00	0.00	9.56	0.00	0.	0.00
13	17.994	28.29	0.22	16.99	429.96	1.41	3.95	4.63	4.04	4.63	2.95	0.00	0.00	0.00	0.00	9.49	0.00	0.	0.00
14	17.782	28.31	0.22	16.96	430.00	1.42	3.92	4.67	4.01	4.67	3.00	0.00	0.00	0.00	0.00	9.42	0.00	0.	0.00
15	17.570	28.32	0.22	16.93	430.04	1.44	3.89	4.69	3.99	4.69	3.04	0.00	0.00	0.00	0.00	9.35	0.00	0.	0.00
16	17.358	28.33	0.22	16.91	430.07	1.45	3.87	4.72	3.96	4.72	3.08	0.00	0.00	0.00	0.00	9.28	0.00	0.	0.00
17	17.146	28.35	0.22	16.89	430.10	1.46	3.84	4.74	3.93	4.74	3.10	0.00	0.00	0.00	0.00	9.21	0.00	0.	0.00
18	16.934	28.36	0.22	16.87	430.13	1.47	3.82	4.75	3.91	4.75	3.12	0.00	0.00	0.00	0.00	9.14	0.00	0.	0.00
19	16.722	28.38	0.22	16.85	430.16	1.48	3.79	4.77	3.88	4.77	3.14	0.00	0.00	0.00	0.00	9.07	0.00	0.	0.00
20	16.510	28.39	0.22	16.83	430.18	1.49	3.77	4.78	3.86	4.78	3.15	0.00	0.00	0.00	0.00	9.00	0.00	0.	0.00
21	16.298	28.40	0.22	16.82	430.21	1.50	3.75	4.79	3.84	4.79	3.15	0.00	0.00	0.00	0.00	8.93	0.00	0.	0.00
22	16.086	28.42	0.22	16.80	430.23	1.51	3.73	4.79	3.82	4.79	3.15	0.00	0.00	0.00	0.00	8.86	0.00	0.	0.00
23	15.874	28.43	0.22	16.79	430.25	1.52	3.71	4.80	3.79	4.80	3.15	0.00	0.00	0.00	0.00	8.79	0.00	0.	0.00
24	15.662	28.45	0.22	16.77	430.27	1.54	3.69	4.81	3.77	4.81	3.15	0.00	0.00	0.00	0.00	8.72	0.00	0.	0.00
25	15.450	28.46	0.22	16.76	430.28	1.55	3.67	4.81	3.75	4.81	3.14	0.00	0.00	0.00	0.00	8.65	0.00	0.	0.00
26	15.238	28.47	0.22	16.75	430.30	1.56	3.65	4.81	3.73	4.81	3.13	0.00	0.00	0.00	0.00	8.58	0.00	0.	0.00
27	15.026	28.49	0.22	16.74	430.31	1.57	3.63	4.81	3.71	4.81	3.12	0.00	0.00	0.00	0.00	8.51	0.00	0.	0.00
28	14.814	28.50	0.22	16.73	430.33	1.58	3.61	4.82	3.69	4.82	3.11	0.00	0.00	0.00	0.00	8.44	0.00	0.	0.00
29	14.602	28.52	0.22	16.72	430.34	1.59	3.59	4.82	3.67	4.82	3.09	0.00	0.00	0.00	0.00	8.37	0.00	0.	0.00
30	14.390	28.53	0.22	16.71	430.36	1.60	3.57	4.82	3.65	4.82	3.08	0.00	0.00	0.00	0.00	8.30	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 3 BT03 TO GLASS SHOP WEIR

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	PHOS	CHL A	COLI	NCM
			deg C	ppt	MG/L	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	#/100mL	MG/L
31 EACH	UPR RCH	0.04260	28.53	0.22	16.71	430.36	1.60	3.57	4.82	3.65	4.82	3.08	0.00	0.00	0.00	8.30	0.00	0.00
	INCR	0.00131	28.84	0.19	12.80	381.20	1.71	3.52	3.89			1.27	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
	km	km	m³/s	m/s	days	m	m	m	m³	m²	m²	m³	m/s	m²/s	m/s
31	14.39	14.16	0.04391	0.0	0.00690	0.39	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.007

Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

32	14.16	13.92	0.04522	0.0	0.00710	0.38	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.007
33	13.92	13.69	0.04653	0.0	0.00731	0.37	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.007
34	13.69	13.45	0.04784	0.0	0.00752	0.36	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
35	13.45	13.22	0.04915	0.0	0.00772	0.35	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
36	13.22	12.98	0.05046	0.0	0.00793	0.34	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
37	12.98	12.75	0.05177	0.0	0.00813	0.33	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
38	12.75	12.51	0.05308	0.0	0.00834	0.33	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
39	12.51	12.28	0.05439	0.0	0.00855	0.32	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.009
40	12.28	12.04	0.05570	0.0	0.00875	0.31	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.009
TOT						3.50			14957.28	41548.00					
Avg					0.0078		0.36	17.68			6.36				
Cum						54.28									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da				
31	14.155	7.72	2.49	0.38	0.06	0.00	0.04	0.06	0.00	4.33	4.33	4.33	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
32	13.920	7.69	2.51	0.41	0.06	0.00	0.05	0.06	0.00	4.38	4.38	4.38	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
33	13.685	7.67	2.53	0.41	0.06	0.00	0.05	0.06	0.00	4.43	4.43	4.43	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
34	13.450	7.64	2.55	0.41	0.06	0.00	0.05	0.06	0.00	4.49	4.49	4.49	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
35	13.215	7.62	2.56	0.42	0.06	0.00	0.05	0.06	0.00	4.54	4.54	4.54	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
36	12.980	7.59	2.58	0.42	0.06	0.00	0.05	0.06	0.00	4.60	4.60	4.60	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
37	12.745	7.57	2.60	0.42	0.06	0.00	0.05	0.06	0.00	4.65	4.65	4.65	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
38	12.510	7.54	2.62	0.41	0.06	0.00	0.05	0.06	0.00	4.71	4.71	4.71	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
39	12.275	7.52	2.64	0.41	0.06	0.00	0.05	0.06	0.00	4.76	4.76	4.76	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
40	12.040	7.49	2.66	0.41	0.06	0.00	0.05	0.06	0.00	4.82	4.82	4.82	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Avg	20	DEG C RATE	2.16	0.27	0.05	0.00	0.03	0.05	0.00	2.50				0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
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31	14.155	28.72	0.22	16.59	428.89	1.90	3.53	4.69	3.61	4.69	2.92	0.00	0.00	0.00	0.00	8.05	0.00	0.	0.00
32	13.920	28.91	0.22	16.48	427.51	2.00	3.47	4.57	3.55	4.57	2.76	0.00	0.00	0.00	0.00	7.80	0.00	0.	0.00
33	13.685	29.10	0.21	16.38	426.20	2.04	3.42	4.46	3.50	4.46	2.61	0.00	0.00	0.00	0.00	7.55	0.00	0.	0.00
34	13.450	29.29	0.21	16.28	424.97	2.04	3.37	4.36	3.45	4.36	2.48	0.00	0.00	0.00	0.00	7.30	0.00	0.	0.00
35	13.215	29.48	0.21	16.19	423.80	2.02	3.33	4.26	3.40	4.26	2.36	0.00	0.00	0.00	0.00	7.05	0.00	0.	0.00
36	12.980	29.67	0.21	16.10	422.70	1.99	3.30	4.18	3.37	4.18	2.24	0.00	0.00	0.00	0.00	6.80	0.00	0.	0.00
37	12.745	29.86	0.21	16.02	421.65	1.96	3.27	4.10	3.34	4.10	2.14	0.00	0.00	0.00	0.00	6.55	0.00	0.	0.00
38	12.510	30.05	0.20	15.94	420.65	1.93	3.25	4.03	3.31	4.03	2.05	0.00	0.00	0.00	0.00	6.30	0.00	0.	0.00
39	12.275	30.24	0.20	15.86	419.70	1.90	3.24	3.96	3.30	3.96	1.97	0.00	0.00	0.00	0.00	6.05	0.00	0.	0.00
40	12.040	30.43	0.20	15.79	418.79	1.87	3.23	3.90	3.28	3.90	1.89	0.00	0.00	0.00	0.00	5.80	0.00	0.	0.00

FINAL REPORT BT01 UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
REACH NO. 4 GLASS SHOP WEIR TO COTEAU WEIR UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH INPUTS

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
	km	km	m³/s		m/s	days	m	m	m³	m²	m²	m³	m/s	m²/s	m/s
41	12.04	11.78	0.05360	0.0	0.00665	0.46	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.007
42	11.78	11.51	0.05150	0.0	0.00639	0.48	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.006
43	11.51	11.25	0.04941	0.0	0.00613	0.50	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.006
44	11.25	10.99	0.04731	0.0	0.00587	0.52	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.006
45	10.99	10.72	0.04521	0.0	0.00561	0.54	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.006
46	10.72	10.46	0.04311	0.0	0.00535	0.57	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.005
47	10.46	10.20	0.04101	0.0	0.00509	0.60	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.005
48	10.20	9.94	0.03892	0.0	0.00483	0.63	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.005
49	9.94	9.67	0.03682	0.0	0.00456	0.67	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.005
50	9.67	9.41	0.03472	0.0	0.00430	0.71	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.004

TOT		5.67		21212.00	43289.80	
Avg		0.0054	0.49	16.46		8.07
CUM		59.95				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da	
41	11.777	7.51	1.87	0.48	0.06	0.00	0.06	0.06	0.00	2.68	2.68	2.68	0.15	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
42	11.514	7.52	1.86	0.48	0.06	0.00	0.06	0.06	0.00	2.67	2.67	2.67	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
43	11.251	7.53	1.85	0.48	0.06	0.00	0.06	0.06	0.00	2.65	2.65	2.65	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
44	10.988	7.55	1.84	0.48	0.06	0.00	0.06	0.06	0.00	2.63	2.63	2.63	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
45	10.725	7.56	1.82	0.47	0.06	0.00	0.06	0.06	0.00	2.61	2.61	2.61	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
46	10.462	7.57	1.81	0.47	0.06	0.00	0.06	0.06	0.00	2.60	2.60	2.60	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
47	10.199	7.59	1.80	0.47	0.06	0.00	0.06	0.06	0.00	2.58	2.58	2.58	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
48	9.936	7.60	1.79	0.47	0.06	0.00	0.06	0.06	0.00	2.56	2.56	2.56	0.15	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
49	9.673	7.62	1.77	0.46	0.06	0.00	0.06	0.06	0.00	2.55	2.55	2.55	0.15	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
50	9.410	7.63	1.76	0.46	0.06	0.00	0.06	0.06	0.00	2.53	2.53	2.53	0.15	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
AVG	20	DEG C RATE		1.51	0.30	0.05	0.00	0.04	0.05	0.00	1.40			0.10	0.03	0.00	0.00	0.00			0.00	0.00	0.00	

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
41	11.777	30.33	0.20	15.79	418.79	2.56	3.50	4.02	3.57	4.02	1.94	0.00	0.00	0.00	0.00	6.31	0.00	0.	0.00
42	11.514	30.22	0.20	15.79	418.79	2.91	3.74	4.15	3.81	4.15	1.99	0.00	0.00	0.00	0.00	6.82	0.00	0.	0.00
43	11.251	30.12	0.20	15.79	418.79	3.08	3.94	4.27	4.01	4.27	2.03	0.00	0.00	0.00	0.00	7.33	0.00	0.	0.00
44	10.988	30.02	0.20	15.79	418.79	3.15	4.10	4.39	4.18	4.39	2.07	0.00	0.00	0.00	0.00	7.84	0.00	0.	0.00
45	10.725	29.92	0.20	15.79	418.79	3.17	4.24	4.51	4.33	4.51	2.11	0.00	0.00	0.00	0.00	8.35	0.00	0.	0.00
46	10.462	29.81	0.19	15.79	418.79	3.17	4.36	4.63	4.45	4.63	2.14	0.00	0.00	0.00	0.00	8.86	0.00	0.	0.00
47	10.199	29.71	0.19	15.79	418.79	3.16	4.46	4.75	4.55	4.75	2.18	0.00	0.00	0.00	0.00	9.37	0.00	0.	0.00
48	9.936	29.61	0.19	15.79	418.79	3.14	4.55	4.86	4.64	4.86	2.22	0.00	0.00	0.00	0.00	9.88	0.00	0.	0.00
49	9.673	29.50	0.19	15.79	418.79	3.13	4.62	4.98	4.72	4.98	2.25	0.00	0.00	0.00	0.00	10.39	0.00	0.	0.00

50 9.410 29.40 0.19 15.79 418.79 3.11 4.68 5.09 4.79 5.09 2.29 0.00 0.00 0.00 0.00 10.90 0.00 0. 0.00

FINAL REPORT BT01
 REACH NO. 5 COTEAU WEIR TO SONIC WEIR

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
51	UPR RCH	0.03472	29.40	0.19	15.79	418.79	3.11	4.68	5.09	4.79	5.09	2.29	0.00	0.00	0.00	10.90	0.00	0.00
51	DAM		WEIR #2 Coteau ADDS	0.08	MG/L DISSOLVED OXYGEN	GIVING			3.19	MG/L D.O.	FOR THE UPR RCH INPUT							
EACH	INCR			-0.00133														

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPNSN m²/s	MEAN VELO m/s		
51	9.41	9.16	0.03339	0.0	0.00199	1.44	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002		
52	9.16	8.91	0.03206	0.0	0.00191	1.50	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002		
53	8.91	8.67	0.03073	0.0	0.00183	1.57	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002		
54	8.67	8.42	0.02940	0.0	0.00175	1.64	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002		
55	8.42	8.17	0.02807	0.0	0.00167	1.72	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002		
56	8.17	7.92	0.02673	0.0	0.00159	1.80	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002		
57	7.92	7.67	0.02540	0.0	0.00151	1.90	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002		
58	7.67	7.43	0.02407	0.0	0.00143	2.00	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.001		
59	7.43	7.18	0.02274	0.0	0.00135	2.12	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.001		
60	7.18	6.93	0.02141	0.0	0.00127	2.25	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.001		
TOT						17.95			41654.07	43846.40							
Avg					0.0016		0.95	17.68			16.80						
CUM						77.90											

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM	ENDING	SAT	REAER	BOD#1	BOD#1	ABOD#1	BOD#2	BOD#2	ABOD#2	BKGD	FULL	CORR	ORGN	ORGN	NH3	NH3	DENIT	PO4	ALG	MAC	COLI	NCM	NCM
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Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

NO.	DIST	D.O. mg/L	RATE 1/da	DECAY 1/da	SETT 1/da	DECAY 1/da	SETT 1/da	DECAY 1/da	SOD *	SOD *	SOD *	DECAY 1/da	SETT 1/da	DECAY 1/da	SRCE *	RATE 1/da	SRCE *	PROD **	PROD **	DECAY 1/da	DECAY 1/da	SETT 1/da	
51	9.162	7.64	0.88	0.26	0.06	0.00	0.03	0.06	0.00	5.32	5.32	5.32	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
52	8.914	7.64	0.88	0.17	0.06	0.00	0.02	0.06	0.00	5.30	5.30	5.30	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
53	8.666	7.65	0.87	0.14	0.06	0.00	0.02	0.06	0.00	5.28	5.28	5.28	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
54	8.418	7.66	0.87	0.14	0.06	0.00	0.02	0.06	0.00	5.27	5.27	5.27	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
55	8.170	7.66	0.87	0.14	0.06	0.00	0.02	0.06	0.00	5.25	5.25	5.25	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
56	7.922	7.67	0.87	0.14	0.06	0.00	0.02	0.06	0.00	5.23	5.23	5.23	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
57	7.674	7.68	0.87	0.15	0.06	0.00	0.02	0.06	0.00	5.22	5.22	5.22	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
58	7.426	7.68	0.87	0.15	0.06	0.00	0.02	0.06	0.00	5.20	5.20	5.20	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
59	7.178	7.69	0.87	0.15	0.06	0.00	0.02	0.06	0.00	5.18	5.18	5.18	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
60	6.930	7.70	0.87	0.16	0.06	0.00	0.02	0.06	0.00	5.17	5.17	5.17	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE		0.74	0.25	0.05	0.00	0.03	0.05	0.00	2.95			0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
*	g/m ² /d	**	mg/L/day																				

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
51	9.162	29.35	0.19	15.79	418.79	1.37	3.78	4.79	3.89	4.79	2.15	0.00	0.00	0.00	0.00	10.98	0.00	0.	0.00
52	8.914	29.30	0.19	15.79	418.79	0.88	3.46	4.59	3.57	4.59	2.09	0.00	0.00	0.00	0.00	11.06	0.00	0.	0.00
53	8.666	29.25	0.19	15.79	418.79	0.75	3.31	4.41	3.42	4.41	2.03	0.00	0.00	0.00	0.00	11.14	0.00	0.	0.00
54	8.418	29.20	0.19	15.79	418.79	0.73	3.20	4.26	3.31	4.26	1.98	0.00	0.00	0.00	0.00	11.22	0.00	0.	0.00
55	8.170	29.15	0.19	15.79	418.79	0.74	3.11	4.11	3.23	4.11	1.92	0.00	0.00	0.00	0.00	11.30	0.00	0.	0.00
56	7.922	29.10	0.18	15.79	418.79	0.76	3.03	3.97	3.15	3.97	1.87	0.00	0.00	0.00	0.00	11.38	0.00	0.	0.00
57	7.674	29.05	0.18	15.79	418.79	0.78	2.96	3.85	3.07	3.85	1.82	0.00	0.00	0.00	0.00	11.46	0.00	0.	0.00
58	7.426	29.00	0.18	15.79	418.79	0.80	2.88	3.73	3.00	3.73	1.77	0.00	0.00	0.00	0.00	11.54	0.00	0.	0.00
59	7.178	28.95	0.18	15.79	418.79	0.82	2.81	3.61	2.93	3.61	1.72	0.00	0.00	0.00	0.00	11.62	0.00	0.	0.00
60	6.930	28.90	0.18	15.79	418.79	0.84	2.75	3.51	2.87	3.51	1.67	0.00	0.00	0.00	0.00	11.70	0.00	0.	0.00

STREAM SUMMARY
 BT01

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

TRAVEL TIME = 77.90 DAYS

MAXIMUM EFFLUENT = 0.00 PERCENT

FLOW	=	0.00190	TO	0.05570	m^3/s
DISPERSION	=	0.0000	TO	0.0000	m^2/s
VELOCITY	=	0.00029	TO	0.00875	m/s
DEPTH	=	0.36	TO	0.95	m
WIDTH	=	16.46	TO	17.68	m
BOD DECAY	=	0.01	TO	0.48	per day
NH ₃ DECAY	=	0.00	TO	0.00	per day
SOD	=	2.53	TO	6.26	$\text{g}/\text{m}^2/\text{d}$
NH ₃ SOURCE	=	0.00	TO	0.00	$\text{g}/\text{m}^2/\text{d}$
REAERATION	=	0.87	TO	2.66	per day
BOD SETTLING	=	0.06	TO	0.07	per day
NBOD DECAY	=	0.00	TO	0.16	per day
NBOD SETTLING	=	0.03	TO	0.03	per day
TEMPERATURE	=	28.25	TO	31.67	deg C
DISSOLVED OXYGEN	=	0.07	TO	3.17	mg/L

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH
NO.		km	km	km	days	m^3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....EXECUTION COMPLETED

**APPENDIX B2 –CALIBRATION
WATER QUALITY INPUT JUSTIFICATIONS
(Upper Terrebonne Model)**

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)			
DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
OCEAN EXCHANGE RATIO	0		No tidal impacts
TIDE HEIGHT	0.0	meters	No tidal impacts
MAXIMUM ITERATION LIMIT	200		Adjusted for convergence
EFFECTIVE BOD DUE TO ALGAE	0.01	mg/L BOD /ug chl a/ day	Calibration
ALGAE OXYGEN PRODUCTION	0	mg O / ug chl a / day	Turned off for simulation
HYDRAULIC CALCULATION METHOD	2		Widths and depths

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)						
DATA TYPE 8 - REACH IDENTIFICATION DATA						
Reach	ID	Name	Upstream River Kilometer	Downstream River Kilometer	Element Length, km	Data Source
1	BT	Upper Bayou Terrebonne, Reach1, BT01 to BT02	22.03	18.63	0.3400	GIS and survey data
2	BT	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	18.63	14.39	0.2120	GIS and survey data
3	BT	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	14.39	12.04	0.2350	GIS and survey data
4	BT	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	12.04	9.41	0.2630	GIS and survey data
5	BT	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	9.41	6.93	0.2480	GIS and survey data

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)													
DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS													
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	0	0	16.46	BT02	0	0	0.40	BT02	0	Best professional judgement and knowledge of the area - value used in all reaches	0.03	Environmental Engineering, P.E. Examination Guide and Handbook by Christopher King, p. 113
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	0	0	17.68	BT03	0	0	0.37	BT03	0	Same as Reach 1	0.03	Same as Reach 1
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	0	0	17.68	BT04	0	0	0.36	BT04	0	Same as Reach 1	0.03	Same as Reach 1
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	0	0	16.46	BT05a	0	0	0.49	BT05a	0	Same as Reach 1	0.03	Same as Reach 1

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)													
DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS													
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	0	0	17.68	BT06	0	0	0.95	BT06	0	Same as Reach 1	0.03	Same as Reach 1

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)							
DATA TYPE 11 - INITIAL CONDITIONS							
Reach	Name	Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chl a	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	32.05	0.20	1.40	24-hour average from site BT01 continuous monitor data for temperature and salinity; DO=continuous monitor min + 1	62.90	Site BT01 laboratory data
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	28.25	0.22	0.24	Site BT02 insitu data	9.70	Site BT02 laboratory data
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	28.53	0.22	1.59	Site BT03 insitu data	8.30	Site BT03 laboratory data
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	30.43	0.20	5.15	24-hour average from site BT05 continuous monitor data	5.80	Site BT05 laboratory data
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	29.40	0.19	3.25	Site BT05a insitu data	10.90	Site BT05a laboratory data

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)																			
DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS																			
REACH	NAME	K ₂ OPT	K ₂ "A"	K ₂ "B"	K ₂ "C"	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Anearobic BOD1 Dec Rate (1/day)	Aerobic BOD2 Dec Rate (1/day)	Anearobic BOD2 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	BOD2 SETT RATE (1/day)	Data Source	SETTLED BOD1 CONV TO SOD	SETTLED BOD2 CONV TO SOD	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	15	0.0	0	0	LA Equation	3.00	Calibration	0.23		0.03		Site BT02	0.05	0.05	Calibration	0	0	BOD not converted to SOD
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	15	0.0	0	0	LA Equation	2.80	Calibration	0.31		0.03		Site BT03	0.05	0.05	Calibration	0	0	BOD not converted to SOD
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	15	0.0	0	0	LA Equation	2.50	Calibration	0.27		0.03		Site BT04	0.05	0.05	Calibration	0	0	BOD not converted to SOD
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	15	0.0	0	0	LA Equation	1.40	Calibration	0.30		0.04		Site BT05a	0.05	0.05	Calibration	0	0	BOD not converted to SOD
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	15	0.0	0	0	LA Equation	2.95	Calibration	0.25		0.03		Site BT06	0.05	0.05	Calibration	0	0	BOD not converted to SOD

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)				
DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS				
Reach	Name	NBOD decay rate, 1/day	NBOD settling rate, 1/day	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	0.11	0.025	Site BT02; Calibration
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	0.17	0.025	Site BT03; Calibration
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	0.06	0.025	Site BT04; Calibration
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	0.10	0.025	Site BT05a; Calibration
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	0.10	0.025	Site BT06; Calibration

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)									
DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Ouflow, cms	Incr. Inflow, cms	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I	Cons. Mat II	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02		0.01896	Values prorated based on distance	28.25	0.22	17.1	429.8	WQ data based on insitu data and lab data for Site BT02
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03		0.02364	Values prorated based on distance	28.53	0.22	16.4	430.8	WQ data based on insitu data and lab data for Site BT03
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir-		0.01310	Values prorated based on distance	28.84	0.19	12.8	381.2	WQ data based on insitu data and lab data for Site BT04
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	-0.02098		Values prorated based on distance					WQ data not needed for outflow
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	-0.01331		Values prorated based on distance					WQ data not needed for outflow

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)									
DATA TYPES 17 - INCREMENTAL DATA FOR DO, BOD, AND NITROGEN									
Reach	Reach Name	DO, mg/l	UCBOD 1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH ³ -N, mg/L	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	0.24	4.10		2.68			4.47	WQ data based on insitu data and lab data for Site BT02
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	1.59	3.60		3.04			4.78	WQ data based on insitu data and lab data for Site BT03
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	1.71	3.52		1.27			3.89	WQ data based on insitu data and lab data for Site BT04
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir								WQ data not needed for outflow
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)								WQ data not needed for outflow

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)								
DATA TYPES 18 - INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES								
Reach	Reach Name	Phosph., mg/L	Data Source	Chl a, ug/L	Coli., # / 100 mL	Data Source	NCM	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02		Phosphorus not simulated	9.7		Chl a data based on lab data for Site BT02		NCM parameter not used
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03		Phosphorus not simulated	8.3		Chl a data based on lab data for Site BT03		NCM parameter not used
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir		Phosphorus not simulated	5.6		Chl a data based on lab data for Site BT04		NCM parameter not used
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir		Phosphorus not simulated			Chl a data not needed for outflow		NCM parameter not used
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)		Phosphorus not simulated			Chl a data not needed for outflow		NCM parameter not used

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)						
DATA TYPE 19 - NONPOINT SOURCES						
Reach	Reach Name	Length of Reach, km	UCBOD1 (kg/day)	NBOD (kg/day)	UCBOD2 (kg/day)	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	3.40	18.5	2.2	8.0	Calibration
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	4.24	41.0	9.3	13.0	Calibration
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	2.35	22.0	0.0	3.5	Calibration
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	2.63	54.0	10.0	17.0	Calibration
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	2.48	24.0	1.5	9.8	Calibration

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)								
DATA TYPES 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES								
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms	Temp, deg C	Sal, ppt	Conservative Material I	Conservative Material II	Data Source
Reach 1 Headwaters of Upper Bayou Terrebonne upstream of weir # 3	1	Not used	0.0000	32.05	0.2	16.2	452.39	There was no measureable headwater flow. The LQUAL default headwater flow was used. Max immeasureable flow calculation produced a flow that would not allow calibration; 24-hr average values for salinity, temperature, DO, and conductivity (conservative material II) at site BT01 were used for the headwater values; the chlorides data was obtained from the lab data for Site BT01

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)					
DATA TYPES 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN					
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	UCBOD2, mg/l	Data Source
Reach 1 Headwaters of Upper Bayou Terrebonne upstream of weir # 3	1.4	12.13	5.15	12.40	DOmin + 1 mg/L, based on BT01 DO data; UCBOD1, UCBOD2, and NBOD data obtained from Site BT01 BOD data

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)		
DATA TYPES 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES		
Headwater Name	Chlorophyll a, ug/L	Date Source
Reach 1 Headwaters of Upper Bayou Terrebonne upstream of weir # 3	62.9	Chlorophyll a data obtained from Site BT01 lab data

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)			
DATA TYPES 27 - LOWER BOUNDARY CONDITIONS			
Survey Site Name: ICWW (for Bayou Terrebonne downstream of weir # 3)			
Parameter	Value	Units	Data Source
TEMPERATURE	28.90	degrees Celsius	Site BT06 insitu data
SALINITY	0.18	ppt	Site BT06 insitu data
CONSERVATIVE MATERIAL I	11.7	mg/L	Site BT06 lab data
CONSERVATIVE MATERIAL II	359.60	mg/L	Site BT06 insitu data
DISSOLVED OXYGEN	0.77	mg/L	Site BT06 insitu data
BIOCHEMICAL OXYGEN DEMAND 1	2.85	mg/L	Site BT06 BOD data
BIOCHEMICAL OXYGEN DEMAND 2	3.44	mg/L	Site BT06 BOD data
NBOD	1.71	mg/L	Site BT06 BOD data
CHLOROPHYLL A	11.70	ug/L	Site BT06 chlorophyll a data

Bayou Terrebonne 120301 Calibration Justifications (Upper Terrebonne Model)

DATA TYPE 28 – DAM DATA

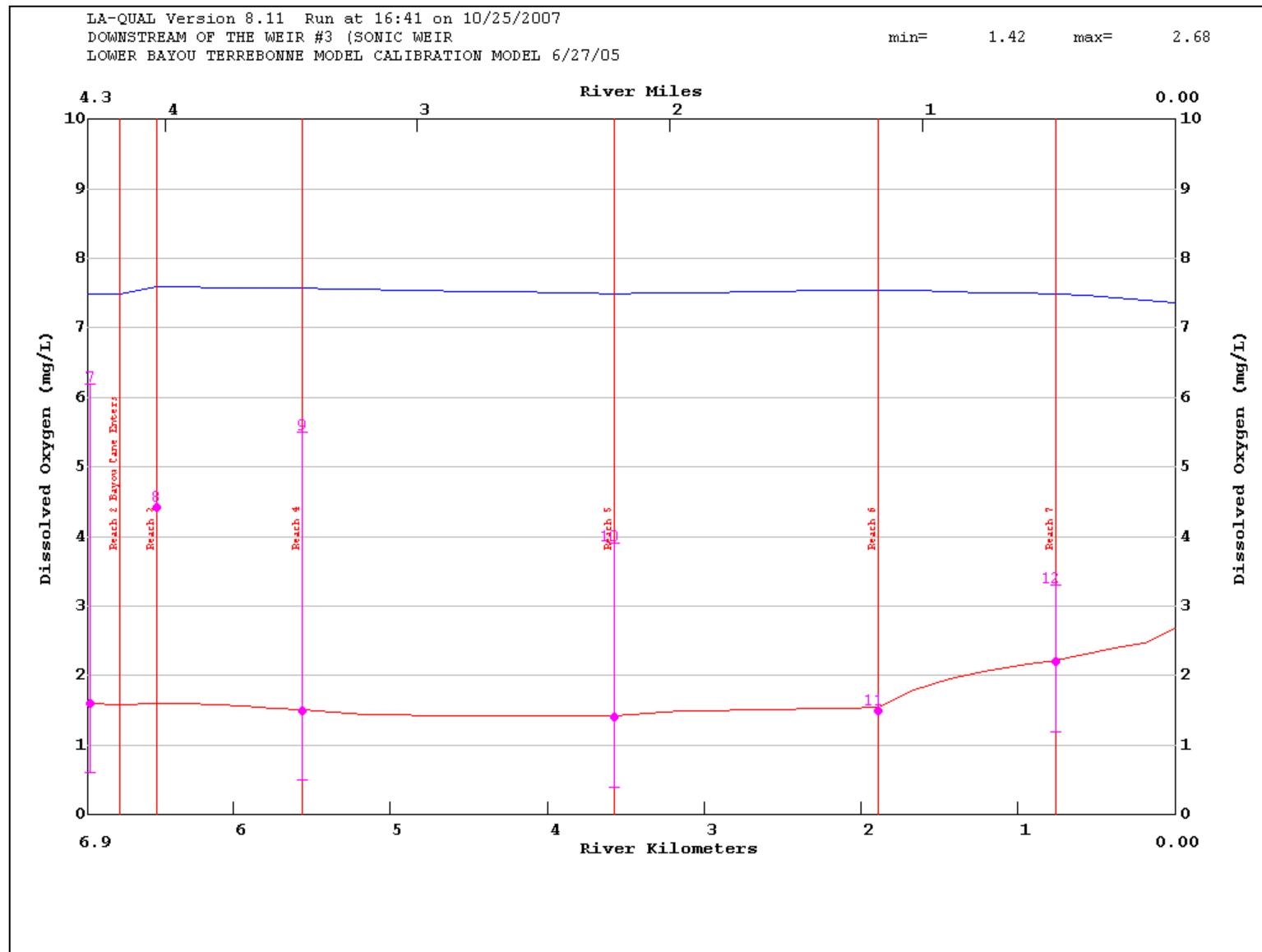
Dam Name	EL #	Dam Reaeration Option	Water Quality Factor, "a"	Weir Dam aeration coefficient, "b"	Static head loss over dam, "H"	Data Source
Weir # 1 (Bayou Terrebonne model upstream of weir # 3)	41	1	0.65	0.0	0.2	Survey data from weir # 1 and recommended dam aeration from the LAQUAL User's Manual (modified for calibration to insitu DO data upstream and downstream of weir # 1)
Weir # 2 (Bayou Terrebonne model upstream of weir # 3)	51	1	0.65	0.1	0.32	Survey data from weir # 2 and recommended dam aeration from the LAQUAL User's Manual (modified for calibration to insitu DO data upstream and downstream of weir # 2)

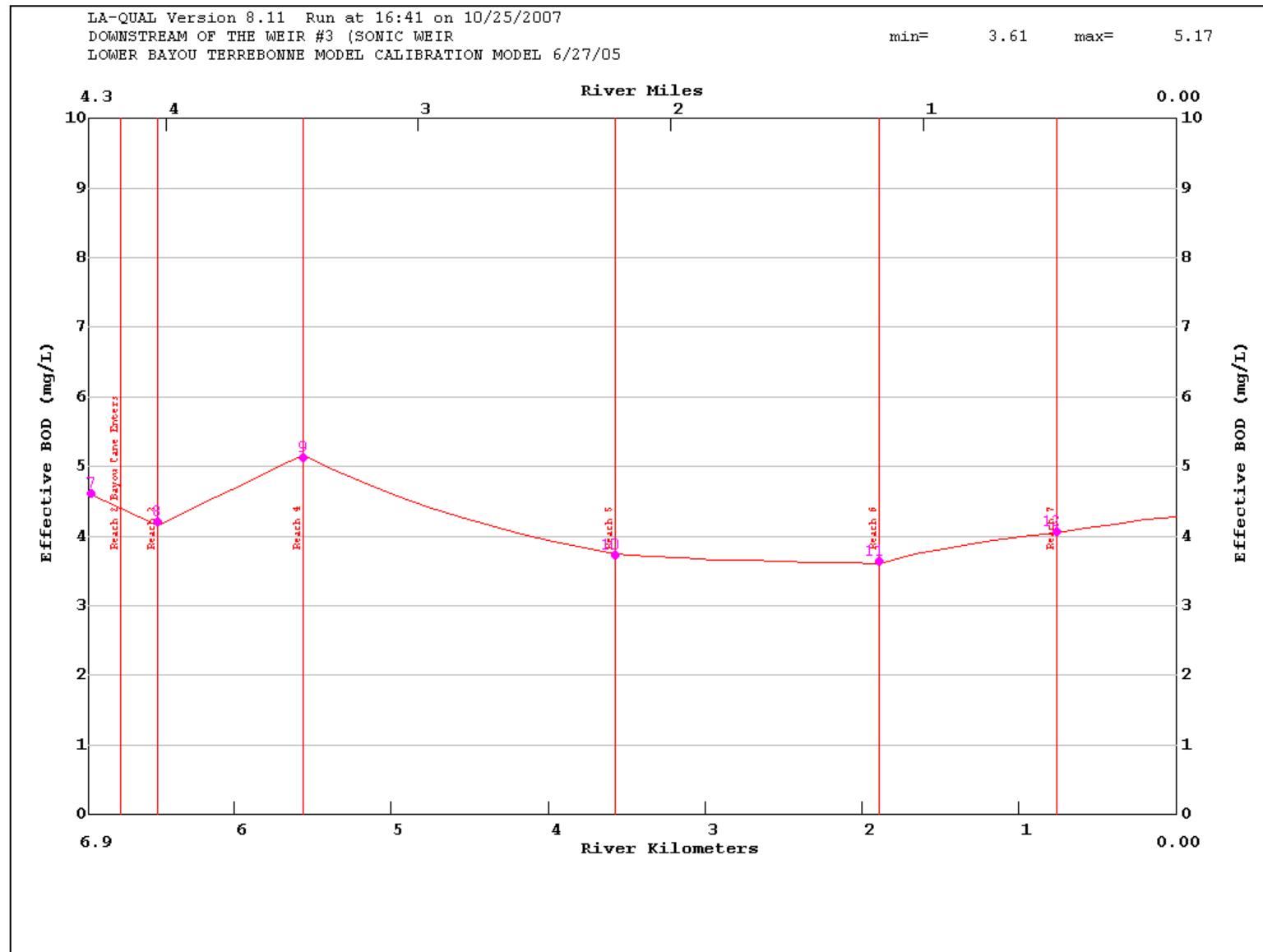
APPENDIX C – CALIBRATION MODEL INPUT AND OUTPUT DATA SETS
(Lower Terrebonne Model)

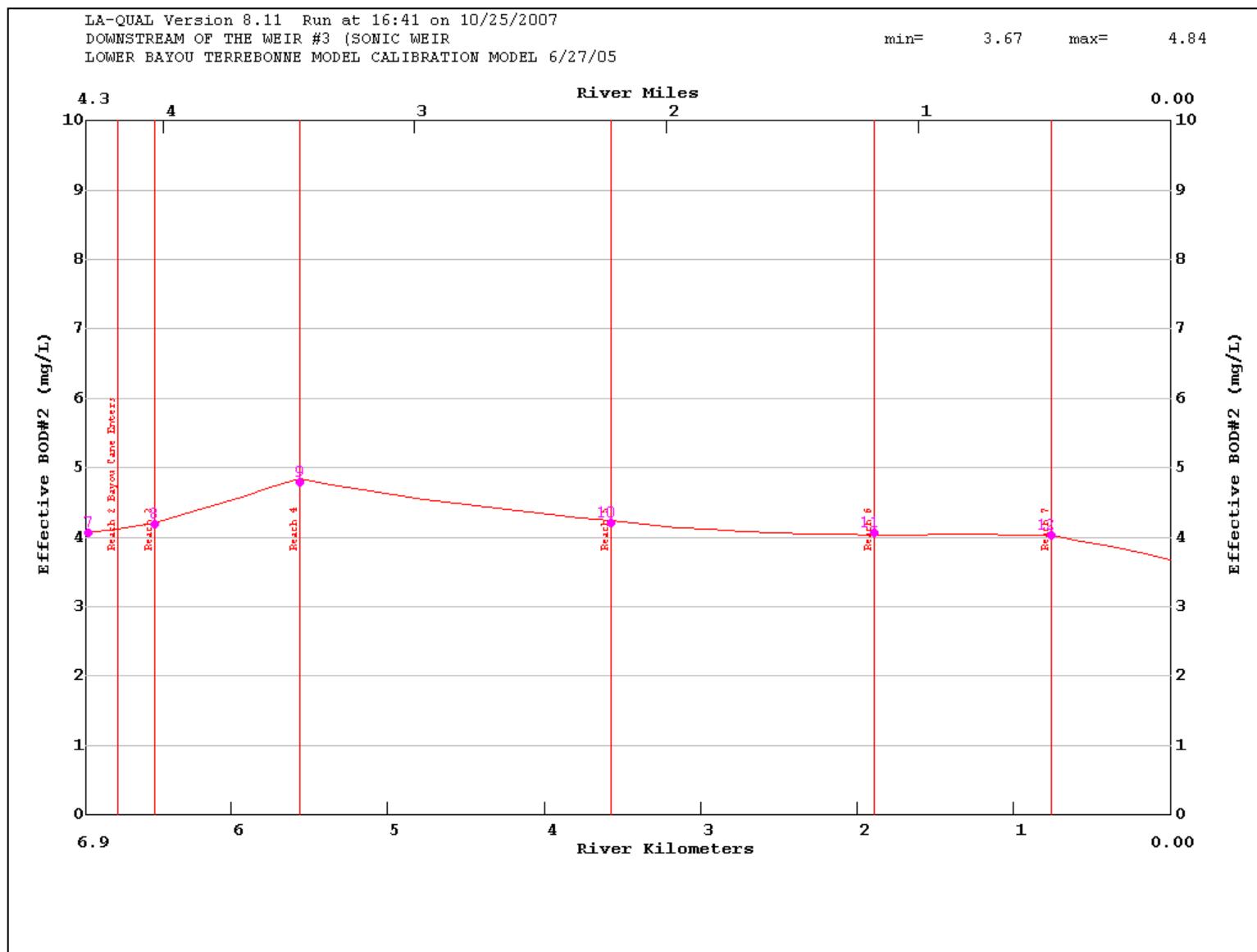
APPENDIX C1 – CALIBRATION OUTPUT GRAPHS AND INPUT, OVERLAY,
AND OUTPUT FILES

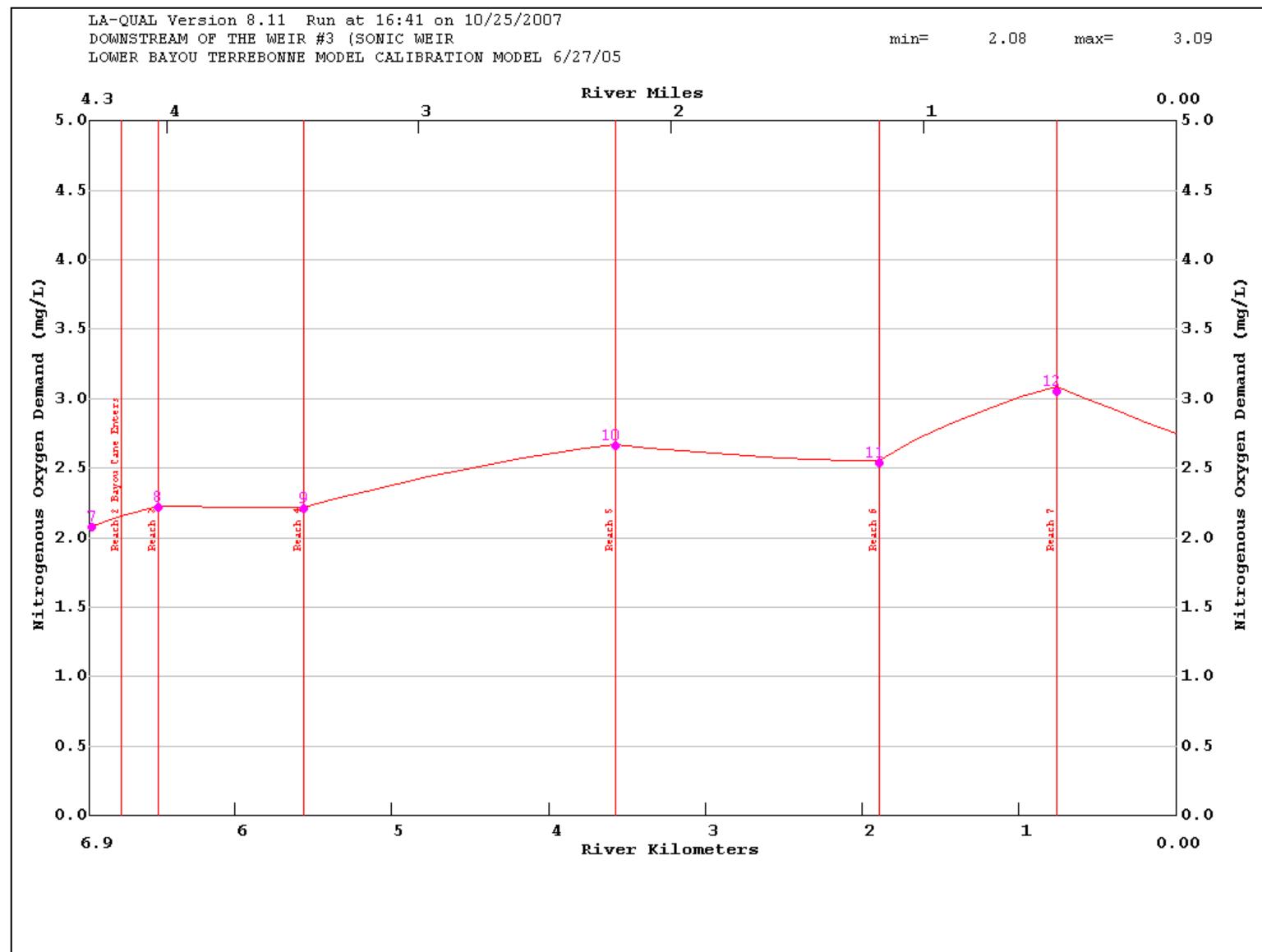
APPENDIX C2 – CALIBRATION WATER QUALITY INPUT DATA AND
JUSTIFICATIONS

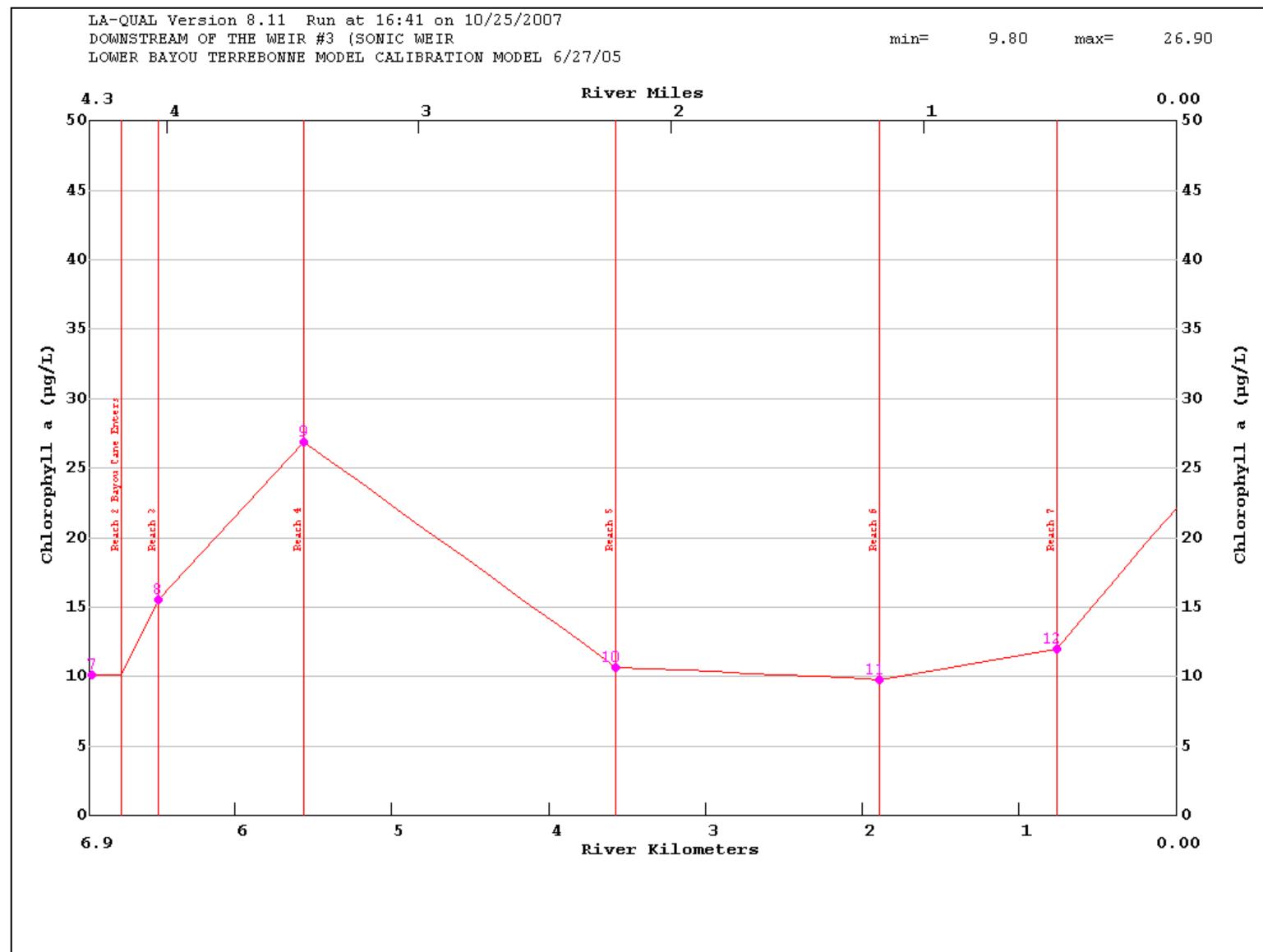
**APPENDIX C1 – CALIBRATION OUTPUT GRAPHS AND INPUT, OVERLAY,
AND OUTPUT FILES
(Lower Terrebonne Model)**

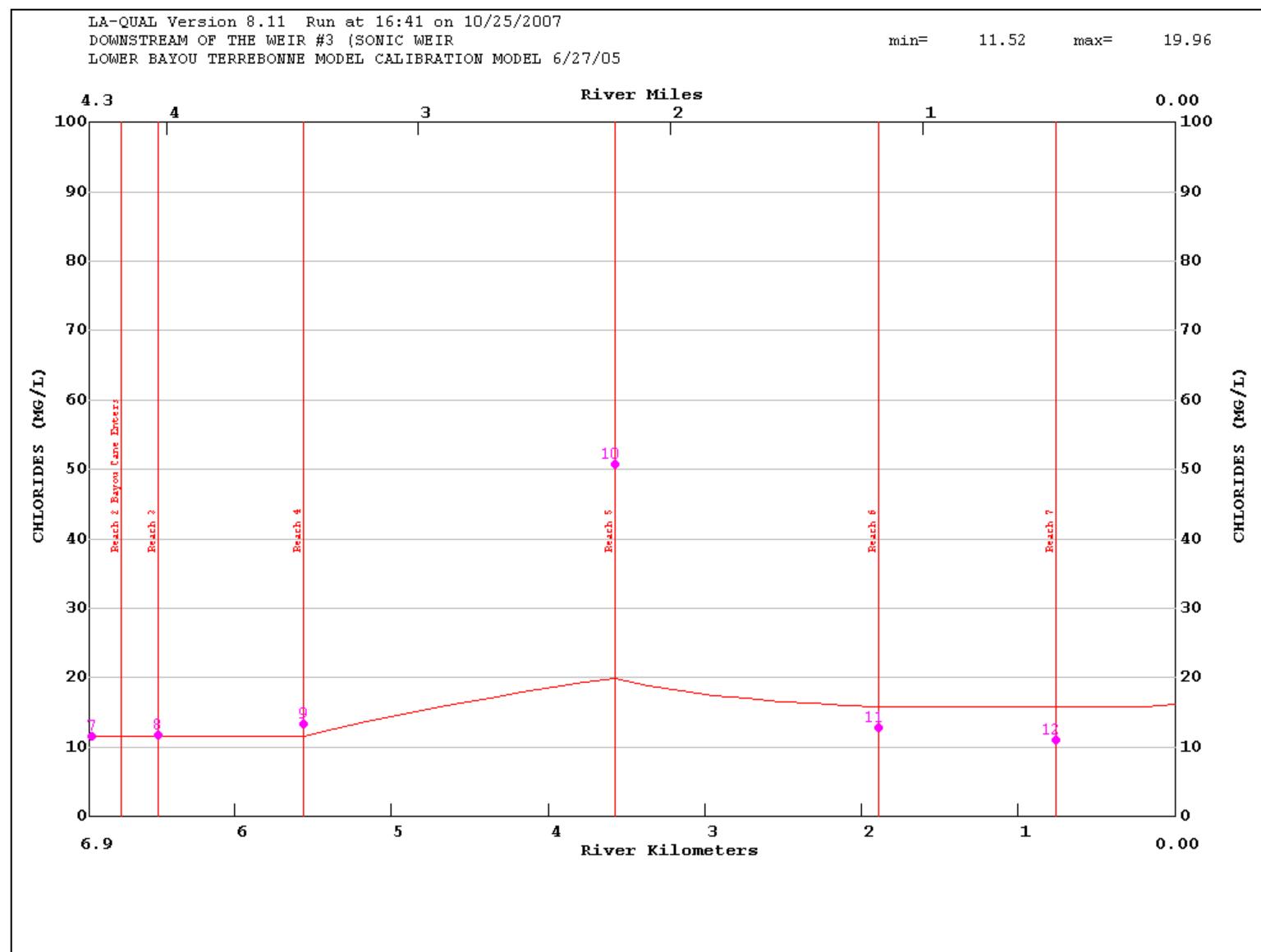


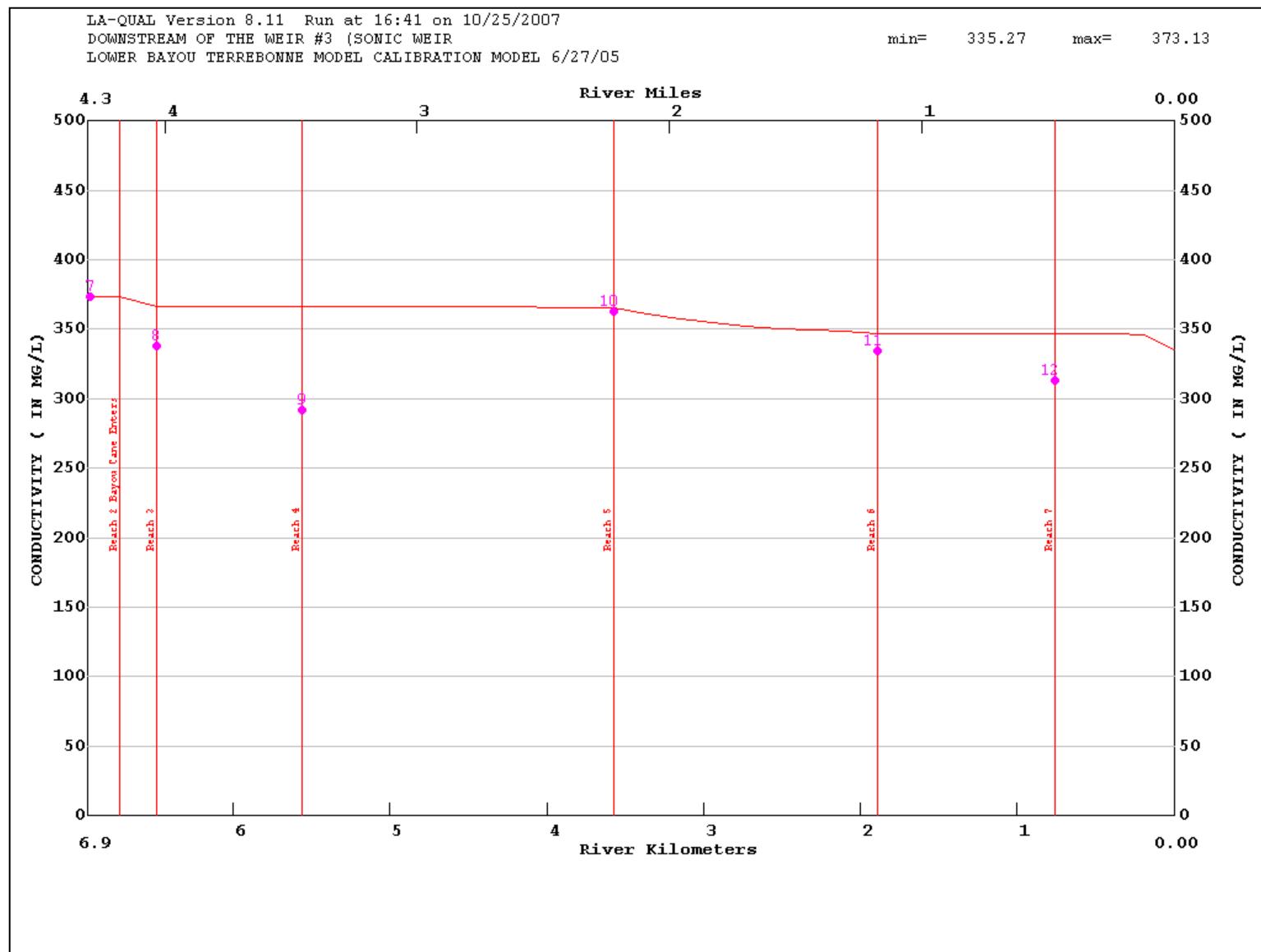


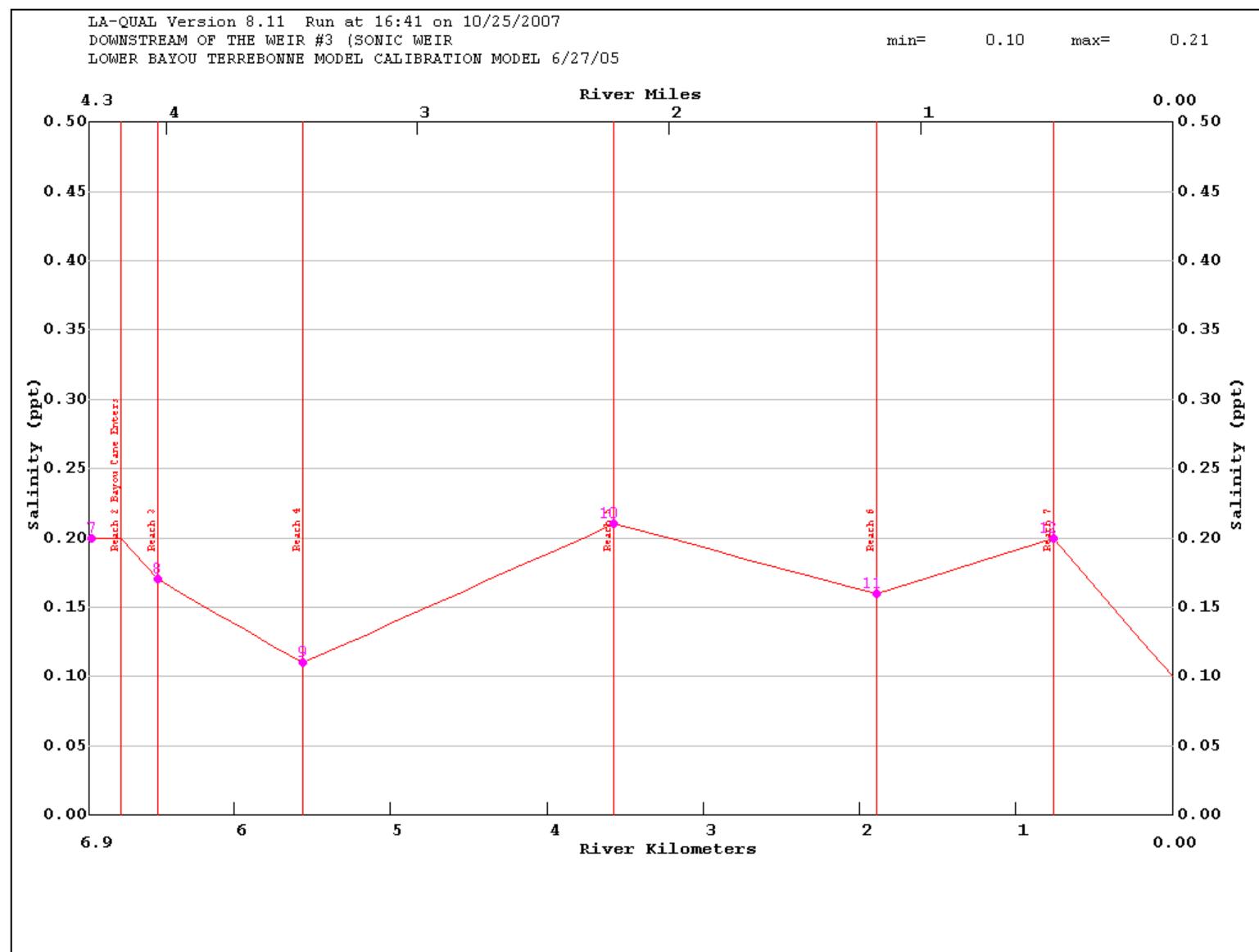


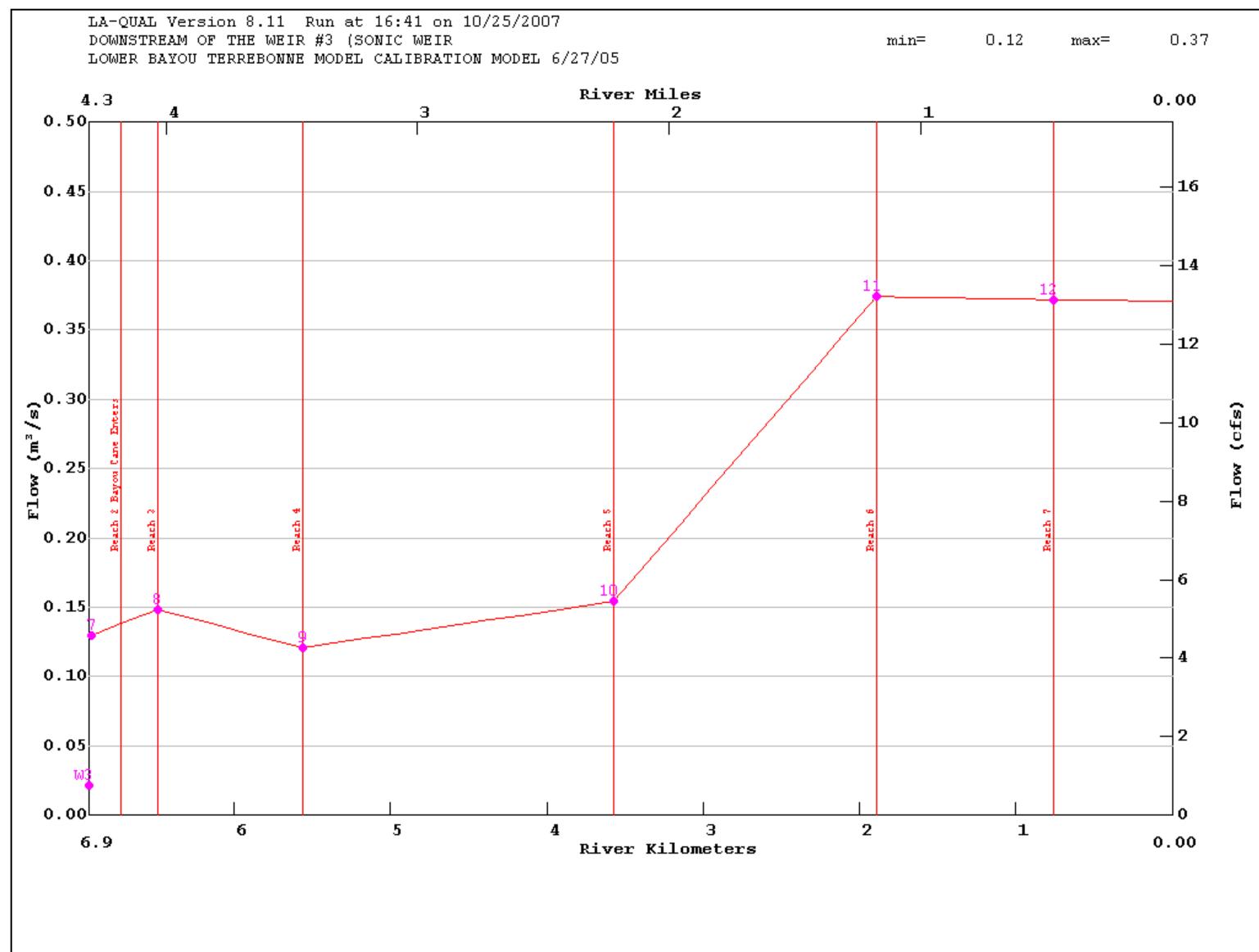


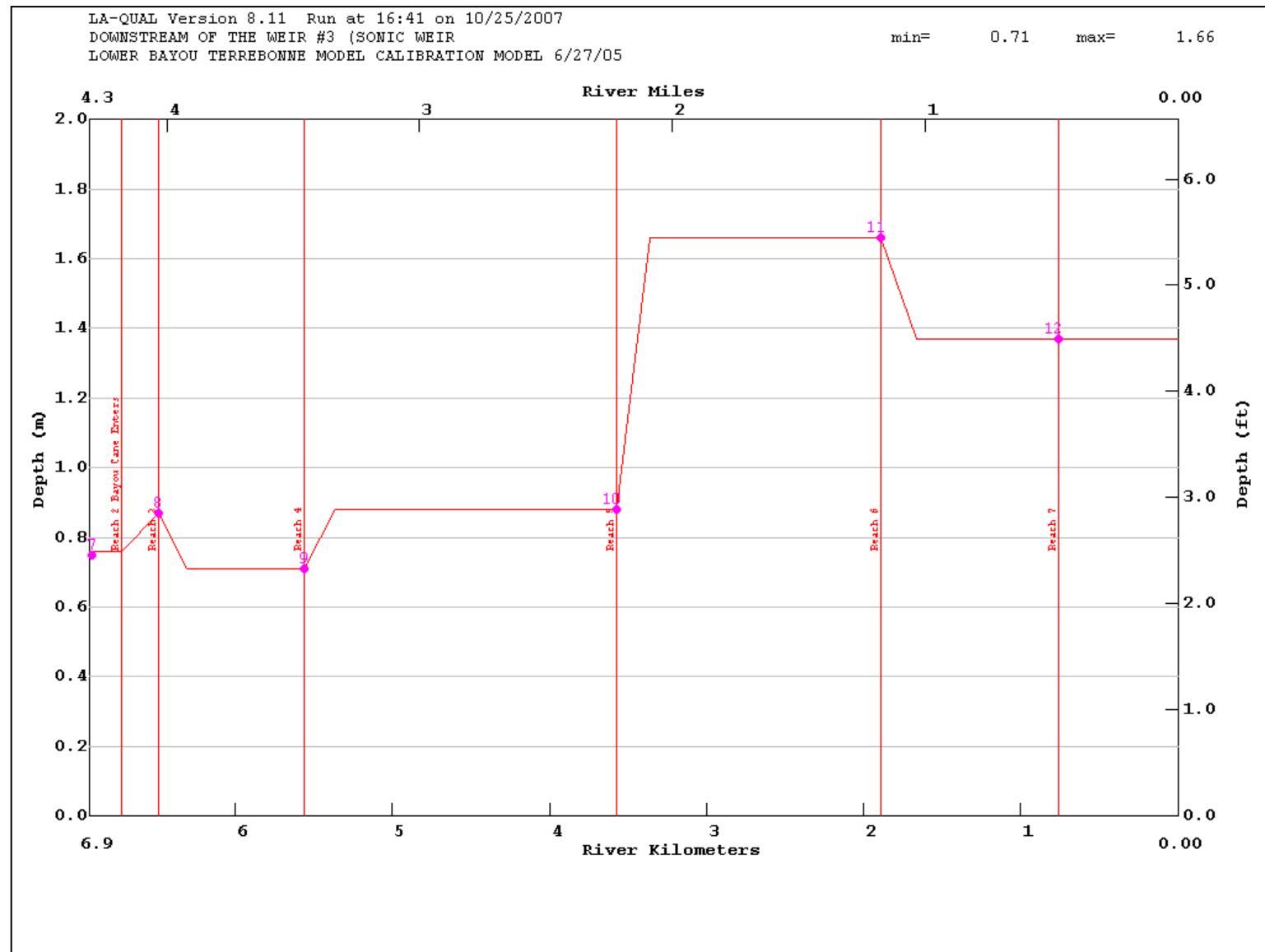


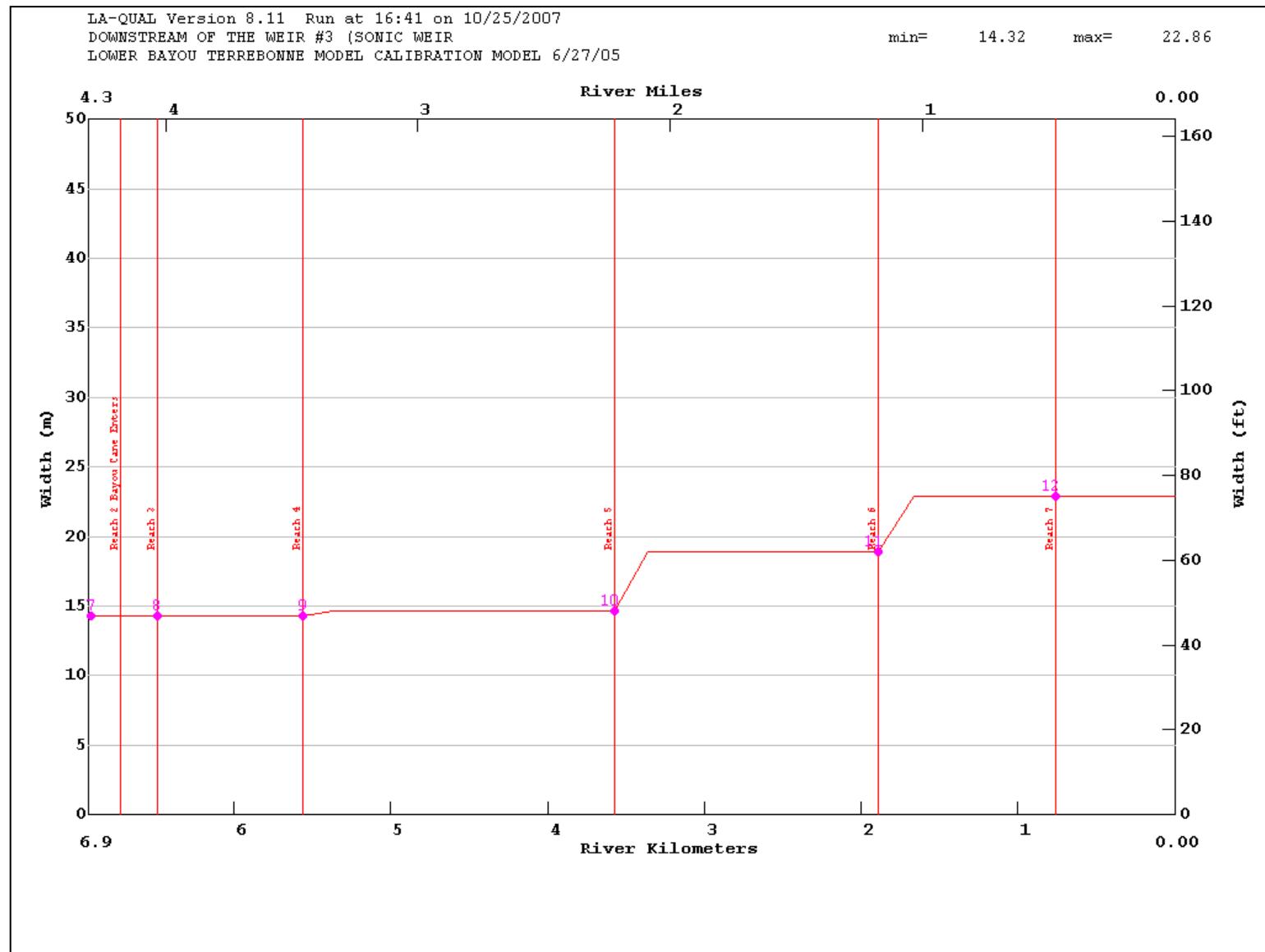


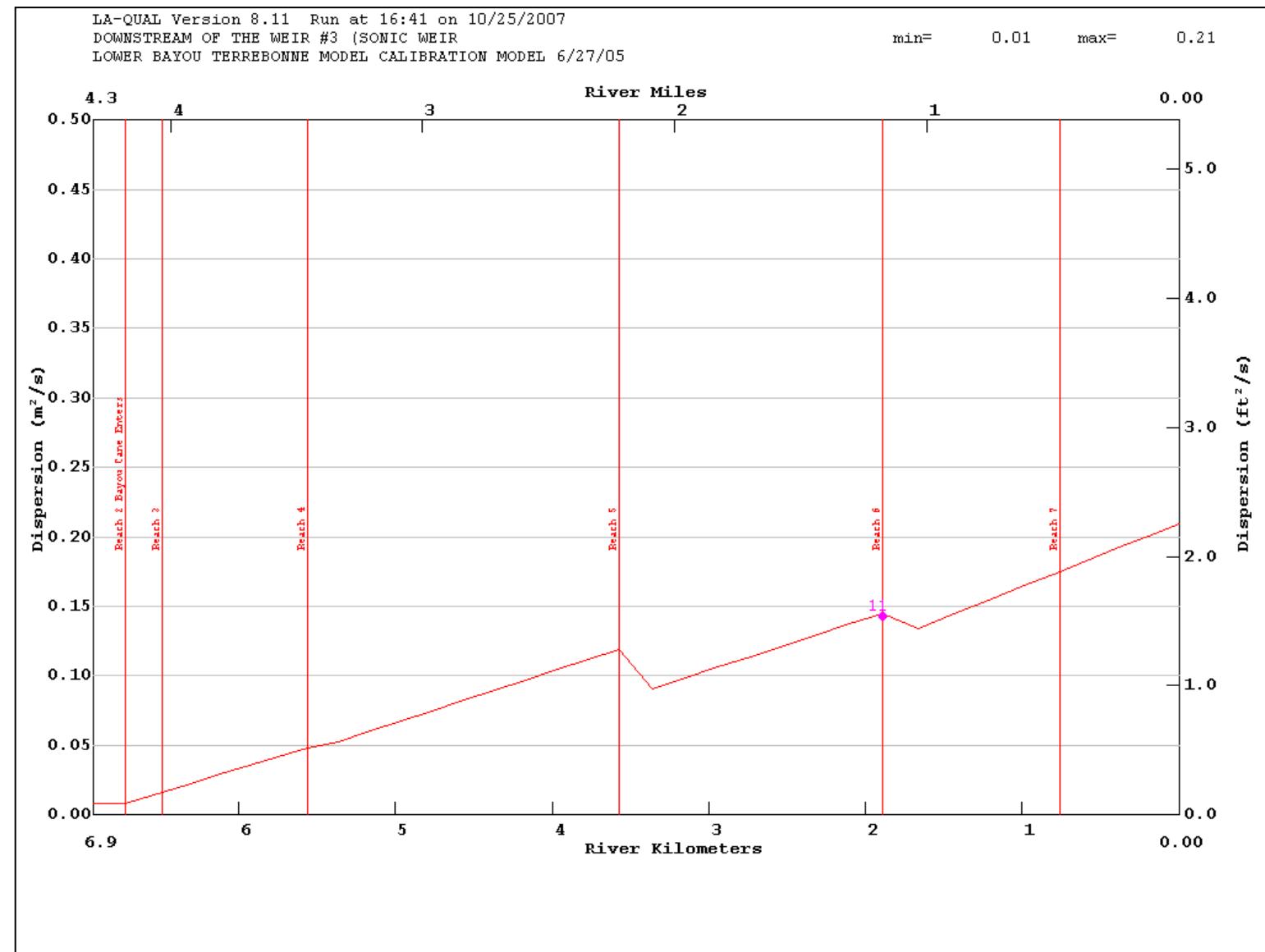


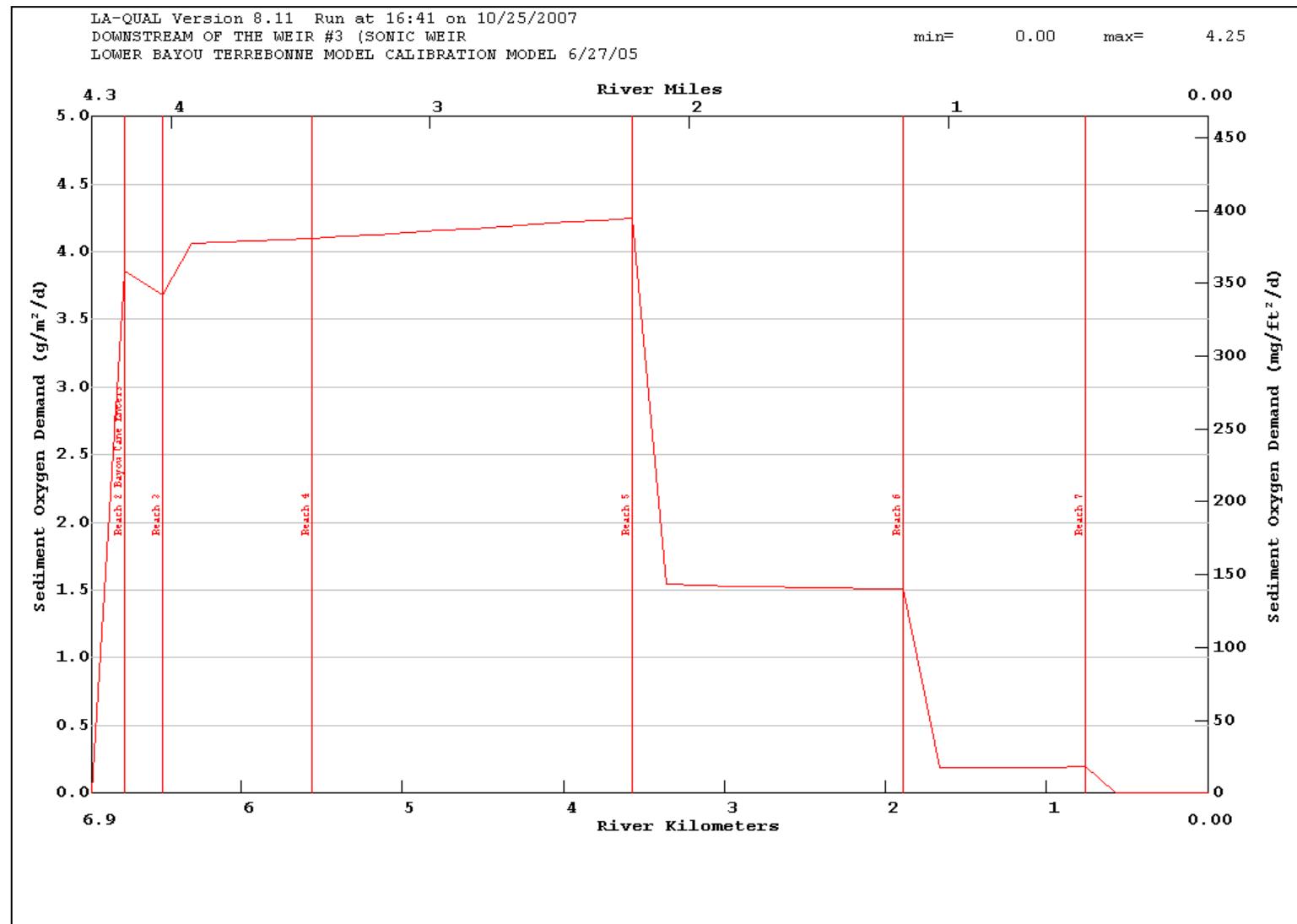


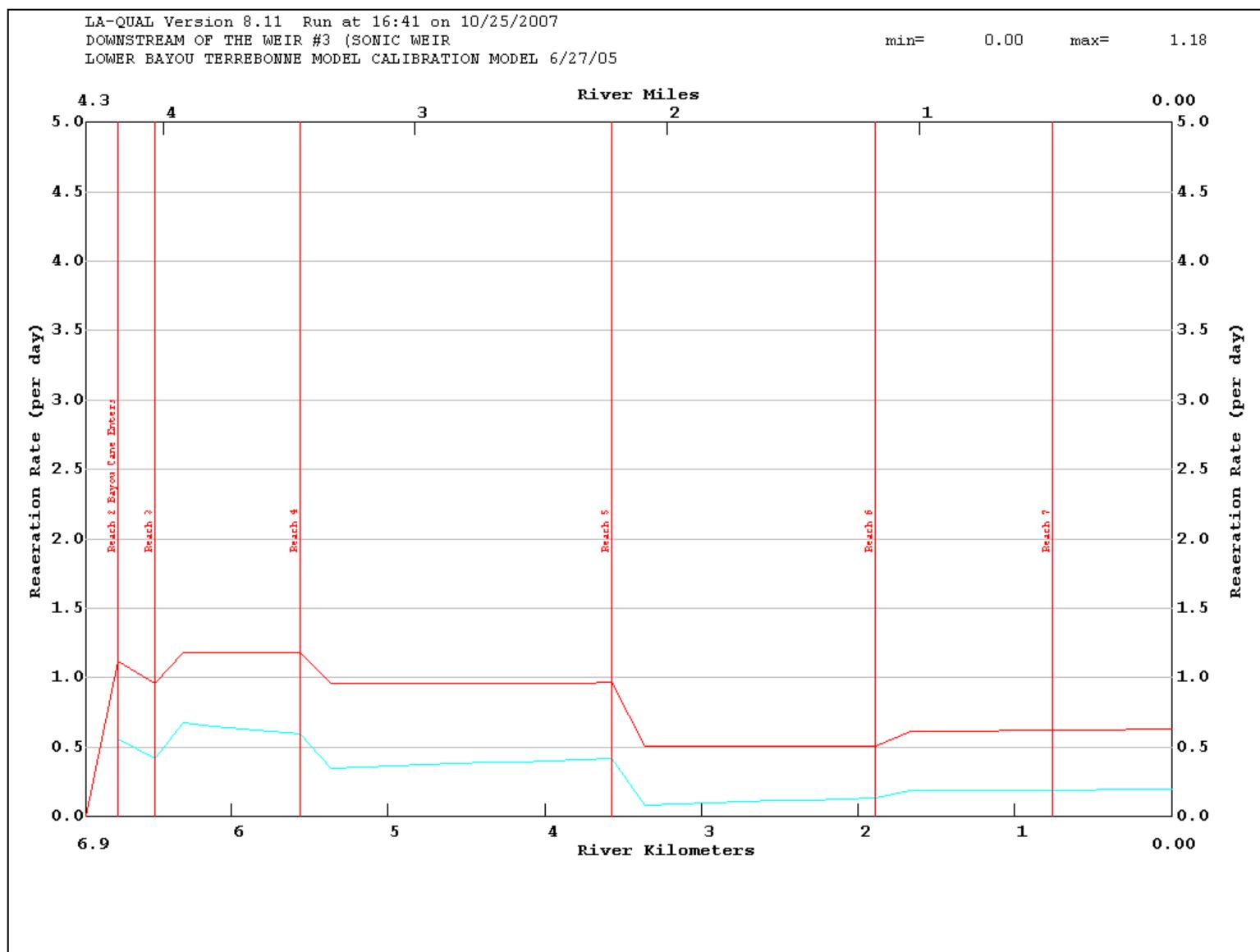












LOWER BAYOU TERREBONNE CALIBRATION INPUT FILE

TITLE01 LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
TITLE02 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR
! Modeled CBOD1, CBOD2, and NBOD; Used constant widths and depths; estimated tidal flow
CONTROL YES METRIC UNITS
ENDATA01
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1
MODOPT07 YES BOD2
MODOPT08 YES NBOD OXYGEN DEMAND IN MG/L
MODOPT09 NO PHOSPHORUS
MODOPT10 NO CHLOROPHYLL A
MODOPT11 NO MACROPHYTES
MODOPT12 NO COLIFORM
MODOPT13 NO NONCONSERVATIVE MATERIAL = NBOD IN MG/L
ENDATA02
PROGRAM KL MINIMUM = 0.7
PROGRAM MAXIMUM ITERATION LIMIT = 200.
PROGRAM HYDRAULIC CALCULATION METHOD = 2.
PROGRAM TIDE HEIGHT = 0.13
PROGRAM TIDAL PERIOD = 25.0
PROGRAM DISPERSION = 2
PROGRAM EFFECTIVE BOD DUE TO ALGAE = 0.01
PROGRAM ALGAE OXYGEN PRODUCTION RATE = 0
PROGRAM INHIBITION CONTROL VALUE = 3
PROGRAM OCEAN EXCHANGE RATIO = 1.0
PROGRAM SETTLING RATE UNITS = 2
ENDATA03
ENDATA04
ENDATA05
ENDATA06
ENDATA07
! Reach data entered on 9/19/04; Added a single-element headwater reach above Weir #3 10/27/04
! Removed the single element weir on 10/10/2007. Started model below the weir
REACH ID 1 BT Weir #3 to Bayou Cane 6.93 6.72 0.2100
REACH ID 2 BC Bayou Cane to BT-08 6.72 6.49 0.2300
REACH ID 3 BT BT-08 to BT-09 6.49 5.56 0.1860
REACH ID 4 BT BT-09 to BT-10 5.56 3.57 0.1990
REACH ID 5 BT BT-10 to BT-11 3.57 1.89 0.2100
REACH ID 6 BT BT-11 to BT-12 1.89 0.76 0.2260
REACH ID 7 BT BT-12 to ICWW 0.76 0.00 0.1900
ENDATA08
! Data entered 9/22/04
!
! Datatype 9 revised 9/24/2007; width and depth constants determined by the downstream site in each reach
HYDR-1 1 0 0 14.32 0 0 0.76 0 0.03

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

	2	0	0	14.32	0	0	0.87	0	0.03
HYDR-1	3	0	0	14.32	0	0	0.71	0	0.03
HYDR-1	4	0	0	14.63	0	0	0.88	0	0.03
HYDR-1	5	0	0	18.90	0	0	1.66	0	0.03
HYDR-1	6	0	0	22.86	0	0	1.37	0	0.03
HYDR-1	7	0	0	22.86	0	0	1.37	0	0.03

ENDATA09

! In the process of adjusting the dispersion data 10/8/2007; This area is tidal;
 ! set TRANGE and calibrated to dispersion and conservatives (best fit)
 ! by adjusting "a"; 10/12/07 - SET TRANGE values based on survey sites;
 ! set "b", "c", "d" to 0.833, 0, 1 based on LDEQ standard practice;
 ! calibrated "a" to measured dispersion values

!0000000011111111122222222333333334444444445555555566666666677777777778

!2345678901234567890123456789012345678901234567890123456789012345678901234567890

	RCH	TRANGE	"a"	"b"	"c"	"d"
HYDR-2	1	0.69	18.00	0.833	0.00	1.00
HYDR-2	2	0.66	18.00	0.833	0.00	1.00
HYDR-2	3	0.62	18.00	0.833	0.00	1.00
HYDR-2	4	0.70	18.00	0.833	0.00	1.00
HYDR-2	5	0.77	18.00	0.833	0.00	1.00
HYDR-2	6	0.92	18.00	0.833	0.00	1.00
HYDR-2	7	0.92	18.00	0.833	0.00	1.00

ENDATA10

! Data entered on 9/22/04

! Initial conditions temp, sal, DO and chl a revised 10/2/07; revised 10/15/07
 ! to match site located at the upstream end of each reach

!00000000111111111222222233333333444444444555555556666666667777777778

!234567890123456789012345678901234567890123456789012345678901234567890

	TEMP	SAL	DO	CHL A	MACRO				
INITIAL	1	30.43	0.20	1.60	0.00	0.000	0.00	10.1	0.0
INITIAL	2	30.43	0.20	2.85	0.00	0.000	0.00	10.1	0.0
INITIAL	3	29.69	0.17	4.42	0.00	0.000	0.00	15.5	0.0
INITIAL	4	29.88	0.11	2.18	0.00	0.000	0.00	26.9	0.0
INITIAL	5	30.45	0.21	2.01	0.00	0.000	0.00	10.7	0.0
INITIAL	6	30.06	0.16	1.50	0.00	0.000	0.00	9.8	0.0
INITIAL	7	30.45	0.20	1.93	0.00	0.000	0.00	12.0	0.0

ENDATA11

```
! Initial data entered 9/22/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream
! end of each reach
!00000000111111112222222333333334444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      REAERATION          SOD BOD1DEC SETT CON2SOD ANEARO BOD2DEC SETT CON2SOD ANEARO
COEF-1    1    19   0.0   0.0    0.0    2.0   0.31   0.0    0.0   0.03   0.05   0.0   0.0
COEF-1    2    19   0.0   0.0    0.0    2.0   0.24   0.05   0.0    0.03   0.05   0.0   0.0
COEF-1    3    19   0.0   0.0    0.0    2.2   0.22   0.05   0.0    0.03   0.05   0.0   0.0
COEF-1    4    19   0.0   0.0    0.0    2.2   0.20   0.05   0.0    0.03   0.05   0.0   0.0
COEF-1    5    19   0.0   0.0    0.0    0.8   0.41   0.05   0.0    0.03   0.05   0.0   0.0
COEF-1    6    19   0.0   0.0    0.0    0.1   0.31   0.05   0.0    0.03   0.05   0.0   0.0
COEF-1    7    19   0.0   0.0    0.0    0.0   0.31   0.05   0.0    0.03   0.05   0.0   0.0
ENDATA12
```

```
! Data entered 9/22/04
! Decay rates revised on 9/25/07 to coincide with values obtained at
site located at the downstream
! end of each reach
!00000000111111112222222233333333444444444555555556666666677
777777778
!234567890123456789012345678901234567890123456789012345678901
234567890
!
      NBODDEC NBODSETT
COEF-2    1    0.09  0.025    0.0    0.0    0.0    0.0    0.0
COEF-2    2    0.12  0.025    0.0    0.0    0.0    0.0    0.0
COEF-2    3    0.09  0.025    0.0    0.0    0.0    0.0    0.0
COEF-2    4    0.12  0.025    0.0    0.0    0.0    0.0    0.0
COEF-2    5    0.17  0.025    0.0    0.0    0.0    0.0    0.0
COEF-2    6    0.16  0.025    0.0    0.0    0.0    0.0    0.0
COEF-2    7    0.10  0.025    0.0    0.0    0.0    0.0    0.0
ENDATA13
ENDATA14
ENDATA15
!
! Incremental data input started on 10/2/2007; finito in 10/5/07
! Flow based on TOT and distance for Run 4 dye data
! WQ data for each reach set to the value obtained at the site
! at the downstream end of each reach
! Temp, sal, cond, and DO the continuous monitor data used if
available
!
! then insitu data used
! Salinity - calibrated to cont mon and insitu data
! Chlorides - calibrated to Lab data used
! Conductivity - calibrated to cont mon and insitu data
! BOD - Lab data used
! Data indicated residual influence of Bayou Cane, therefore WQ data
for
!
! Reach 2 obtained from BC01
!00000000111111112222222233333333444444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
!
      R#    OUTFLOW    INFLOW     TEMP      SAL CONSERVI CONSERV2
INCR-1    1          0.00926   30.43    0.20    11.6    373.13
INCR-1    2          0.01015   29.95    0.10    10.5    275.89
INCR-1    3    -0.02758
INCR-1    4          0.03339   30.45    0.21    50.8    362.93
INCR-1    5          0.22      30.06    0.16    12.8    334.30
INCR-1    6    -0.00210
INCR-1    7    -0.00141
ENDATA16
!
!00000000111111112222222233333333444444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
!
      R#      DO      BOD1      NBOD      NH3      NO2      BOD2
INCR-2    1      2.85      4.62      2.08
INCR-2    2      1.74      3.81      1.83
INCR-2    3
INCR-2    4      2.01      3.73      2.66
                                         4.20
```

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

INCR-2	5	1.50	3.63	2.54	4.07
INCR-2	6				
INCR-2	7				
ENDATA17					
!00000000111111111222222223333333344444444555555556666666677					
77777778					
!234567890123456789012345678901234567890123456789012345678901					
234567890					
!	R#	PHOS	CHLORA	COLI	NCM
INCR-3	1		10.1		
INCR-3	2		5.2		
INCR-3	3				
INCR-3	4		10.7		
INCR-3	5		9.8		
INCR-3	6				
INCR-3	7				
ENDATA18					
!00000000111111111222222223333333344444444555555556666666677					
77777778					
!234567890123456789012345678901234567890123456789012345678901					
234567890					
!	BOD1	NBOD		DO	BOD2
NONPOINT	1	2.0	1.3		1.5
NONPOINT	2	0.5	1.9		2.0
NONPOINT	3	25.0	1.6		12.0
NONPOINT	4	17.0	10.0		5.0
NONPOINT	5	100.0	14.0		18.0
NONPOINT	6	87.0	42.0		16.0
NONPOINT	7	60.0	2.0		0.0
ENDATA19					
! Data entered on 9/22/04; revised on 10/10/07; Headwater Q based on dye study,					
! cross sectional data and linear interpolation; Headwater WQ based on site BT07					
! HW DO set equal to BT07min + 1 = 0.6 + 1 = 1.60 mg/L					
!00000000111111111222222223333333344444444555555556666666677					
77777778					
!234567890123456789012345678901234567890123456789012345678901					
234567890					
HDWTR-1	1	BT07		0	0.12890
11.6	373.13			30.43	0.200
ENDATA20					
!00000000111111111222222223333333344444444555555556666666677					
77777778					
!234567890123456789012345678901234567890123456789012345678901					
234567890					
!	DO	BOD1	NBOD		BOD2
HDWTR-2	1	1.60	4.62	2.08	0.0
ENDATA21					
!00000000111111111222222223333333344444444555555556666666677					
77777778					
!234567890123456789012345678901234567890123456789012345678901					
234567890					
!		CHL A			
HDWTR-3	1	0.0	10.1	0.0	0.0
ENDATA22					

ENDATA23
ENDATA24
ENDATA25
ENDATA26
! LBC data entered 9/19/04
LOWER BC TEMPERATURE = 31.46
LOWER BC SALINITY = 0.10
LOWER BC CONSERVATIVE MATERIAL I = 18.5
LOWER BC CONSERVATIVE MATERIAL II = 270.97
LOWER BC DISSOLVED OXYGEN = 3.67
LOWER BC BOD1 = 4.21
LOWER BC BOD2 = 3.45
LOWER BC PHOSPHORUS = 0.00
LOWER BC CHLOROPHYLL A = 22.1
LOWER BC COLIFORM = 0.00
LOWER BC NBOD = 2.73
ENDATA27
ENDATA28
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 7
PLOT RCH 1 2 3 4 5 6 7
ENDATA30
OVERLAY 1 LowerBTCalOverlay.txt
ENDATA31

LOWER CALIBRATION OVERLAY FILE

STATION W3 KILOMETER	6.93	
STATION 7 KILOMETER	6.91	
01	30.43	Temperature
02	0.2	Salinity
03	11.6	Chlorides
04	373.13	Conductivity
05	0.60	DO
06	1.60	BOD 1
13	6.20	Chlorophyll <u>a</u>
16	4.62	BOD 2
18	10.10	NBOD
33	4.07	Depth
34	2.08	Width
STATION 8 KILOMETER	0.75	14.32
01	6.49	Temperature
02	29.69	Salinity
03	0.17	Chlorides
04	11.8	Conductivity
05	338.2	DO
06	4.42	BOD 1
13	4.20	Chlorophyll <u>a</u>
16	15.50	BOD 2
18	4.18	NBOD
33	2.22	Depth
34	0.87	Width
STATION 9 KILOMETER	14.32	5.56
01	29.88	Temperature
02	0.11	Salinity
03	13.4	Chlorides
04	291.88	Conductivity
05	0.50	DO
06	1.5	BOD 1
13	5.13	Chlorophyll <u>a</u>
16	26.90	BOD 2
18	4.79	NBOD
33	2.21	Depth
34	0.71	Width
STATION 9A KILOMETER	14.32	4.12
STATION 9B KILOMETER	4.12	3.86
STATION 10 KILOMETER	3.86	3.57
01	30.45	Temperature
02	0.21	Salinity
03	50.8	Chlorides
04	362.93	Conductivity
05	0.40	DO
06	1.40	BOD 1
13	3.73	Chlorophyll <u>a</u>
16	3.90	BOD 2
18	10.70	NBOD
33	4.20	Depth
34	2.66	Width
STATION 11 KILOMETER	0.88	14.63
01	1.89	Temperature
02	30.06	Salinity
03	0.16	Chlorides
	12.8	

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

04	334.3	Conductivity
05	1.50	DO
06	3.63	BOD 1
13	9.80	Chlorophyll <u>a</u>
16	4.07	BOD 2
18	2.54	NBOD
32	0.143	Dispersion
33	1.66	Depth
34	18.90	Width
STATION 12 KILOMETER		0.76
01	30.45	Temperature
02	0.20	Salinity
03	11.1	Chlorides
04	313.28	Conductivity
05	1.20	DO
06	2.20	BOD 1
13	4.06	Chlorophyll <u>a</u>
16	12.00	BOD 2
18	4.03	NBOD
33	3.05	Depth
34	1.37	Width
MRK	22.86	
MRK	6.93	Reach 1 Sonic Weir (Weir #3)
MRK	6.72	Reach 2 Bayou Cane Enters
MRK	6.49	Reach 3
MRK	5.56	Reach 4
MRK	3.57	Reach 5
MRK	1.89	Reach 6
MRK	0.76	Reach 7
END		

LOWER BAYOU TERREBONNE CALIBRATION OUTPUT FILE

LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is C:\AA_DAILY WORKING FOLDER\AA_TRANSFER BTERR DATASET\LAQUAL CAL REVIEW_09182007\Reported Cal Model Rev\LowBTerrCalI_Tidalrev7R_incrQ.txt
Output produced at 15:38 on 10/26/2007

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE CONTROL TITLES

TITLE01 LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
TITLE02 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)
CONTROL YES METRIC UNITS
ENDATA01

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE MODEL OPTION

MODOPT01	NO	TEMPERATURE	
MODOPT02	NO	SALINITY	
MODOPT03	YES	CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MODOPT04	YES	CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN
MG/L			
MODOPT05	YES	DISSOLVED OXYGEN	
MODOPT06	YES	BOD1	
MODOPT07	YES	BOD2	
MODOPT08	YES	NBOD OXYGEN DEMAND	IN MG/L
MODOPT09	NO	PHOSPHORUS	
MODOPT10	NO	CHLOROPHYLL A	
MODOPT11	NO	MACROPHYTES	
MODOPT12	NO	COLIFORM	
MODOPT13	NO	NONCONSERVATIVE MATERIAL = NBOD	IN MG/L
ENDATA02			

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM	KL MINIMUM	= 0.70000 meters/day
PROGRAM	MAXIMUM ITERATION LIMIT	= 200.00000
PROGRAM and depths)	HYDRAULIC CALCULATION METHOD	= 2.00000 (widths
PROGRAM	TIDE HEIGHT	= 0.13000 meters
PROGRAM	TIDAL PERIOD	= 25.00000 hours
PROGRAM	DISPERSION entered as a function of D,Q,Vtidal)	= 2.00000 (values
PROGRAM per ug/L chl a	EFFECTIVE BOD DUE TO ALGAE	= 0.01000 mg/L BOD
PROGRAM chl a/day	ALGAE OXYGEN PRODUCTION RATE	= 0.00000 mg O/ug
PROGRAM all rates but SOD)	INHIBITION CONTROL VALUE	= 3.00000 (inhibit
PROGRAM	OCEAN EXCHANGE RATIO	= 1.00000

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

PROGRAM SETTLING RATE UNITS = 2.00000 (values
entered as per day)
ENDATA03

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE RATE CODE THETA VALUE

ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA06

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD	TYPE	REACH	ID	NAME	BEGIN REACH km	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID		1	BT	Weir #3 to Bayou Cane	6.93	TO	6.72	0.2100	0.21	1	1
REACH ID		2	BC	Bayou Cane to BT-08	6.72	TO	6.49	0.2300	0.23	1	2
REACH ID		3	BT	BT-08 to BT-09	6.49	TO	5.56	0.1860	0.93	5	3
REACH ID		4	BT	BT-09 to BT-10	5.56	TO	3.57	0.1990	1.99	10	8
REACH ID		5	BT	BT-10 to BT-11	3.57	TO	1.89	0.2100	1.68	8	18
REACH ID		6	BT	BT-11 to BT-12	1.89	TO	0.76	0.2260	1.13	5	26
REACH ID		7	BT	BT-12 to ICWW	0.76	TO	0.00	0.1900	0.76	4	31
ENDATA08											

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1		1	BT	0.000	0.000	14.320	0.000	0.000	0.760	0.00000	0.030
HYDR-1		2	BC	0.000	0.000	14.320	0.000	0.000	0.870	0.00000	0.030
HYDR-1		3	BT	0.000	0.000	14.320	0.000	0.000	0.710	0.00000	0.030
HYDR-1		4	BT	0.000	0.000	14.630	0.000	0.000	0.880	0.00000	0.030
HYDR-1		5	BT	0.000	0.000	18.900	0.000	0.000	1.660	0.00000	0.030
HYDR-1		6	BT	0.000	0.000	22.860	0.000	0.000	1.370	0.00000	0.030
HYDR-1		7	BT	0.000	0.000	22.860	0.000	0.000	1.370	0.00000	0.030
ENDATA09											

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"			
HYDR		1	BT	0.69	18.000	0.833	0.000	1.000			
HYDR		2	BC	0.66	18.000	0.833	0.000	1.000			
HYDR		3	BT	0.62	18.000	0.833	0.000	1.000			
HYDR		4	BT	0.70	18.000	0.833	0.000	1.000			
HYDR		5	BT	0.77	18.000	0.833	0.000	1.000			
HYDR		6	BT	0.92	18.000	0.833	0.000	1.000			
HYDR		7	BT	0.92	18.000	0.833	0.000	1.000			
ENDATA10											

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	BT	30.43	0.20	1.60	0.00	0.00	0.00	10.10	0.00
INITIAL	2	BC	30.43	0.20	2.85	0.00	0.00	0.00	10.10	0.00
INITIAL	3	BT	29.69	0.17	4.42	0.00	0.00	0.00	15.50	0.00
INITIAL	4	BT	29.88	0.11	2.18	0.00	0.00	0.00	26.90	0.00
INITIAL	5	BT	30.45	0.21	2.01	0.00	0.00	0.00	10.70	0.00
INITIAL	6	BT	30.06	0.16	1.50	0.00	0.00	0.00	9.80	0.00
INITIAL	7	BT	30.45	0.20	1.93	0.00	0.00	0.00	12.00	0.00
ENDATA11										

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

BOD2	ANAER												
CARD	RCH	RCH	K2	BOD2			K2	K2	BKGRND	BOD	BOD	CONV	BOD2
BOD2	BOD2	CONV		"A"	"B"	"C"		SOD	DECAY	SETT	TO SOD	DECAY	
TYPE	NUM	ID	OPT										
DECAY	SETT	TO SOD	DECAY					g/m ² /d	per day	m/d		per day	
per day	m/d		per day										
COEF-1	1	BT	19 OWENS <1.8 F	0.000	0.000	0.000	2.000	0.310	0.050	0.000	0.000	0.000	
0.030	0.050	0.000	0.000	0.000									
COEF-1	2	BC	19 OWENS <1.8 F	0.000	0.000	0.000	2.000	0.240	0.050	0.000	0.000	0.000	
0.030	0.050	0.000	0.000	0.000									
COEF-1	3	BT	19 OWENS <1.8 F	0.000	0.000	0.000	2.200	0.220	0.050	0.000	0.000	0.000	
0.030	0.050	0.000	0.000	0.000									
COEF-1	4	BT	19 OWENS <1.8 F	0.000	0.000	0.000	2.200	0.200	0.050	0.000	0.000	0.000	
0.030	0.050	0.000	0.000	0.000									
COEF-1	5	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.800	0.410	0.050	0.000	0.000	0.000	
0.030	0.050	0.000	0.000	0.000									
COEF-1	6	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.100	0.310	0.050	0.000	0.000	0.000	
0.030	0.050	0.000	0.000	0.000									
COEF-1	7	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.000	0.310	0.050	0.000	0.000	0.000	
0.030	0.050	0.000	0.000	0.000									
ENDATA12													

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

CARD TYPE	REACH	ID	NBOD DECA	NBOD SETT	ORGN TO	CONV NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1	BT	0.090	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	2	BC	0.120	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	3	BT	0.090	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	4	BT	0.120	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	5	BT	0.170	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	6	BT	0.160	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	7	BT	0.100	0.025	0.000		0.000	0.000	0.000	0.000
ENDATA13										

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING
ENDATA14											

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
ENDATA15						

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	BT	0.00000	0.00926	30.43	0.20	11.60	373.13	0.04410	0.00000
INCR-1	2	BC	0.00000	0.01015	29.95	0.10	10.50	275.89	0.04413	0.00000
INCR-1	3	BT	-0.02758	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.02966
INCR-1	4	BT	0.00000	0.03339	30.45	0.21	50.80	362.93	0.01678	0.00000
INCR-1	5	BT	0.00000	0.22000	30.06	0.16	12.80	334.30	0.13095	0.00000
INCR-1	6	BT	-0.00210	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00186
INCR-1	7	BT	-0.00141	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00186
ENDATA16										

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD	NBOD	BOD#2
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INCR-2	1	BT	2.85	4.62	2.08	0.00	0.00	4.07
INCR-2	2	BC	1.74	3.81	1.83	0.00	0.00	4.42
INCR-2	3	BT	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	4	BT	2.01	3.73	2.66	0.00	0.00	4.20
INCR-2	5	BT	1.50	3.63	2.54	0.00	0.00	4.07
INCR-2	6	BT	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	7	BT	0.00	0.00	0.00	0.00	0.00	0.00
ENDATA17								

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM
INCR-3	1	BT	0.00	10.10	0.00	0.00
INCR-3	2	BC	0.00	5.20	0.00	0.00
INCR-3	3	BT	0.00	0.00	0.00	0.00
INCR-3	4	BT	0.00	10.70	0.00	0.00
INCR-3	5	BT	0.00	9.80	0.00	0.00
INCR-3	6	BT	0.00	0.00	0.00	0.00
INCR-3	7	BT	0.00	0.00	0.00	0.00
ENDATA18						

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT	1	BT	2.00	1.30	0.00	0.00	0.00	1.50
NONPOINT	2	BC	0.50	1.90	0.00	0.00	0.00	2.00
NONPOINT	3	BT	25.00	1.60	0.00	0.00	0.00	12.00
NONPOINT	4	BT	17.00	10.00	0.00	0.00	0.00	5.00
NONPOINT	5	BT	100.00	14.00	0.00	0.00	0.00	18.00
NONPOINT	6	BT	87.00	42.00	0.00	0.00	0.00	16.00
NONPOINT	7	BT	60.00	2.00	0.00	0.00	0.00	0.00
ENDATA19								

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II IN MG/L	
HDWTR-1	1	BT01	0	0.12890	4.552	30.43	0.20	11.600	373.130	0.00

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

ENDATA20

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L		BOD#2 mg/L
HDWTR-2	1	BT01	1.60	4.62	2.08	0.00	0.00
ENDATA21							4.07

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
HDWTR-3	1	BT01	0.00	10.10	0.00	0.00
ENDATA22						

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER ELEMENT	KILOM	NAME
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ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m ³ /s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II IN MG/L
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ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	% NITRIF mg/L
BOD#2							
ENDATA25							

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
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ENDATA26

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
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LOWER BC	TEMPERATURE	= 31.460 deg C
LOWER BC	SALINITY	= 0.100 ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 18.500 MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 270.970 IN MG/L
LOWER BC	DISSOLVED OXYGEN	= 3.670 mg/L
LOWER BC	BOD1	= 4.210 mg/L
LOWER BC	BOD2	= 3.450 mg/L
LOWER BC	PHOSPHORUS	= 0.000 mg/L
LOWER BC	CHLOROPHYLL A	= 22.100 µg/L
LOWER BC	COLIFORM	= 0.000 #/100 mL
LOWER BC	NBOD	= 2.730 mg/L

ENDATA27

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
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ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
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ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 7
PLOT RCH 1 2 3 4 5 6 7
ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

OVERLAY 1 LowerBTCalOverlay.txt
ENDATA31

.....NO ERRORS DETECTED IN INPUT DATA
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
.....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

FINAL REPORT BT01
REACH NO. 1 Weir #3 to Bayou Cane

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
DOWNSTREAM OF THE WEIR #3 (SONIC WEIR

***** REACH INPUTS

ELEM	TYPE	FLOW	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2
PHOS	CHL A	COLI	NCM		MG/L	IN	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NO.			deg C	ppt										
mg/L	µg/L	#/100mL	MG/L											
1	HDWTR	0.12890	30.43	0.20	11.60	373.13	1.60	4.52	4.07	4.62	4.07	2.08	0.00	0.00
0.00	10.10	0.00	0.00											
EACH	INCR	0.00926	30.43	0.20	11.60	373.13	2.85	4.62	4.07			2.08	0.00	0.00
0.00	0.00	0.00												

***** HYDRAULIC PARAMETER VALUES

ELEM	BEGIN	ENDING	FLOW	PCT	ADVCTV	TRAVEL	DEPTH	WIDTH	VOLUME	SURFACE	X-SECT	TIDAL
TIDAL	DISPRSN	MEAN										
NO.	DIST	DIST	EFF	VELO	TIME							
VELO		VELO										

Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

	km m/s	km m ² /s	km m/s	m ³ /s		m/s	days	m	m	m ³	m ²	m ²	m ³
1 0.001	6.93 0.008	6.72 0.013	0.13816	0.0	0.01269		0.19	0.76	14.32	2285.47	3007.20	10.88	269.75
TOT							0.19			2285.47	3007.20		
Avg						0.0127		0.76	14.32			10.88	
CUM							0.19						

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM	ENDING	SAT	REAER	BOD#1	BOD#1	ABOD#1	BOD#2	BOD#2	ABOD#2	BKGD	FULL	CORR	ORGN	ORGN	NH3	NH3	DENIT	
PO4	ALG	MAC	COLI	NCM	NCM													
NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	DECAY	SETT	DECAY	SOD	SOD	SOD	DECAY	SETT	DECAY	SRCE	RATE	
SRCE	PROD	PROD	DECAY	DECAY	SETT													
*	**	**	mg/L	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	
*	**	**	1/da	1/da	1/da													
1 0.00	6.720 0.00	7.49 0.00	1.12 0.00	0.40 0.00	0.06 0.00	0.00	0.04	0.06	0.00	3.86	3.86	3.86	0.06	0.03	0.00	0.00	0.00	
Avg 0.00	20	DEG C	RATE	0.92	0.31	0.05	0.00	0.03	0.05	0.00	2.00			0.09	0.03	0.00	0.00	0.00
0.00				0.00	0.00	0.00												
*	g/m ² /d		**	mg/L/day														

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM	ENDING	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	TOTN	PHOS	CHL
A	MACRO	COLI	NCM													
NO.	DIST	DEG C	PPT	MG/L	IN	MG/L										
µg/L	g/m ³	#/100mL	MG/L													
1 10.10	6.720 0.00	30.43 0.	0.20 0.00	11.60 0.	373.10 0.00	1.59 0.00	4.31 0.00	4.12 0.00	4.41 0.00	4.12 0.00	2.15 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00

FINAL REPORT BT01
 REACH NO. 2 Bayou Cane to BT-08

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS

ELEM PHOS NO.	TYPE CHL A	FLOW COLI #/100mL	TEMP NCM deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L
2 0.00	UPR RCH 10.10	0.13816 0.00	30.43 0.00	0.20	11.60	373.10	1.59	4.31	4.12	4.41	4.12	2.15	0.00	0.00
EACH 0.00	INCR 0.00	0.01015 0.00	29.95 0.00	0.10	10.50	275.89	1.74	3.81	4.42			1.83	0.00	0.00

***** HYDRAULIC PARAMETER VALUES

ELEM TIDAL NO. VELO	BEGIN DISPRSN DIST	ENDING MEAN DIST VELO	FLOW VELO m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³
2 0.001	6.72 0.016	6.49 0.012	0.14831	0.0	0.01190	0.22	0.87	14.32	2865.43	3293.60	12.46	552.34
TOT AVG CUM					0.0119	0.22	0.87	14.32	2865.43	3293.60	12.46	
					0.42							

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS

ELEM PO4	ENDING ALG	SAT MAC	REAER COLI	BOD#1 NCM	BOD#1 NCM	ABOD#1	BOD#2	BOD#2	ABOD#2	BKGD	FULL	CORR	ORGN ORGN	NH3 NH3	DENIT

Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	DECAY	SETT	DECAY	SOD	SOD	SOD	DECAY	SETT	DECAY	SRCE	RATE	
SRCE	PROD	PROD	DECAY	DECAY	SETT					*	*	*				*	1/da	
*	**	**	mg/L	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	
*	**	**	1/da	1/da	1/da													
2	6.490	7.59	0.96	0.30	0.06	0.00	0.04	0.06	0.00	3.68	3.68	3.68	0.07	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
Avg	20	DEG C	RATE	0.80	0.24	0.05	0.00	0.03	0.05	0.00	2.00			0.12	0.03	0.00	0.00	0.00
0.00				0.00	0.00	0.00												
*	g/m ² /d		**	mg/L/day														

***** WATER QUALITY CONSTITUENT VALUES

ELEM	ENDING	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	TOTN	PHOS	CHL
A	MACRO	COLI	NCM													
NO.	DIST	DEG C	PPT	MG/L	IN	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
μg/L	g/m ³	#/100mL	MG/L													
2	6.490	29.69	0.17	11.52	366.48	1.60	3.99	4.20	4.15	4.20	2.23	0.00	0.00	0.00	0.00	0.00
15.50	0.00	0.	0.00													

FINAL REPORT BT01
 REACH NO. 3 BT-08 to BT-09

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS

ELEM	TYPE	FLOW	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	
PHOS	CHL A	COLI	NCM												
NO.			deg C	ppt	MG/L	IN	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
mg/L	μg/L	#/100mL	MG/L												
3	UPR RCH	0.14831	29.69	0.17	11.52	366.48	1.60	3.99	4.20	4.15	4.20	2.23	0.00	0.00	0.00
0.00	15.50	0.00	0.00												
EACH	INCR		-0.00552												

***** HYDRAULIC PARAMETER VALUES

ELEM	BEGIN	ENDING	FLOW	PCT	ADVCTV	TRAVEL	DEPTH	WIDTH	VOLUME	SURFACE	X-SECT	TIDAL
TIDAL	DISPRSN	MEAN										
NO.	DIST	DIST		EFF	VELO	TIME				AREA	AREA	PRISM
VELO	km	km	m³/s		m/s	days	m	m	m³	m²	m²	m³
	m/s	m²/s	m/s									
3	6.49	6.30	0.14279	0.0	0.01404	0.15	0.71	14.32	1891.10	2663.52	10.17	767.02
0.002	0.023	0.014										
4	6.30	6.12	0.13728	0.0	0.01350	0.16	0.71	14.32	1891.10	2663.52	10.17	981.70
0.002	0.029	0.014										
5	6.12	5.93	0.13176	0.0	0.01296	0.17	0.71	14.32	1891.10	2663.52	10.17	1196.38
0.003	0.035	0.013										
6	5.93	5.75	0.12625	0.0	0.01242	0.17	0.71	14.32	1891.10	2663.52	10.17	1411.06
0.003	0.042	0.012										
7	5.75	5.56	0.12073	0.0	0.01187	0.18	0.71	14.32	1891.10	2663.52	10.17	1625.74
0.004	0.048	0.012										
TOT						0.83			9455.50	13317.60		
AVG					0.0129		0.71	14.32				10.17
CUM						1.25						

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS

ELEM	ENDING	SAT	REAER	BOD#1	BOD#1	ABOD#1	BOD#2	BOD#2	ABOD#2	BKGD	FULL	CORR	ORGN	ORGN	NH3	NH3	DENIT
PO4	ALG	MAC	COLI	NCM	NCM												
NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	DECAY	SETT	DECAY	SOD	SOD	SOD	DECAY	SETT	DECAY	SRCE	RATE
SRCE	PROD	PROD	DECAY	DECAY	SETT												
*	**	**	mg/L	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da
*	**	**	1/da	1/da	1/da												
3	6.304	7.59	1.18	0.27	0.06	0.00	0.04	0.06	0.00	4.06	4.06	4.06	0.05	0.03	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00												
4	6.118	7.58	1.18	0.27	0.06	0.00	0.04	0.06	0.00	4.07	4.07	4.07	0.05	0.03	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00												

Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

5	5.932	7.58	1.18	0.27	0.06	0.00	0.04	0.06	0.00	4.08	4.08	4.08	0.05	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.06	0.00	4.09	4.09	4.09	0.05	0.03	0.00	0.00	0.00	
6	5.746	7.57	1.18	0.26	0.06	0.00	0.04	0.06	0.00	4.10	4.10	4.10	0.04	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.06	0.00	4.10	4.10	4.10	0.04	0.03	0.00	0.00	0.00	
7	5.560	7.57	1.18	0.26	0.06	0.00	0.04	0.06	0.00	4.10	4.10	4.10	0.04	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C	RATE	0.99	0.22	0.05	0.00	0.03	0.05	0.00	2.20			0.09	0.03	0.00	0.00	0.00
0.00				0.00	0.00	0.00												

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES

ELEM A NO. ug/L	ENDING MACRO DIST g/m ³	TEMP COLI DEG C	SALN NCM #/100mL	CM-I PPT MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL mg/L	
3	6.304	29.73	0.16	11.52	366.48	1.59	4.18	4.32	4.35	4.32	2.22	0.00	0.00	0.00	0.00	0.00	
17.78	0.00	0.	0.00														
4	6.118	29.77	0.15	11.52	366.48	1.58	4.36	4.45	4.56	4.45	2.22	0.00	0.00	0.00	0.00	0.00	0.00
20.06	0.00	0.	0.00														
5	5.932	29.80	0.13	11.52	366.48	1.56	4.54	4.58	4.76	4.58	2.22	0.00	0.00	0.00	0.00	0.00	0.00
22.34	0.00	0.	0.00														
6	5.746	29.84	0.12	11.53	366.48	1.53	4.72	4.71	4.97	4.71	2.22	0.00	0.00	0.00	0.00	0.00	0.00
24.62	0.00	0.	0.00														
7	5.560	29.88	0.11	11.55	366.47	1.51	4.90	4.84	5.17	4.84	2.22	0.00	0.00	0.00	0.00	0.00	0.00
26.90	0.00	0.	0.00														

FINAL REPORT BT01
 REACH NO. 4 BT-09 to BT-10

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS

ELEM PHOS	TYPE CHL A	FLOW COLI	TEMP NCM	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2
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Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

NO.				deg C		ppt	MG/L	IN MG/L	mg/L							
	mg/L	µg/L	#/100mL	MG/L												
8	UPR RCH	0.12073	29.88		0.11	11.55	366.47	1.51	4.90	4.84	5.17	4.84	2.22	0.00	0.00	
0.00	26.90	0.00	0.00													
EACH	INCR	0.00334	30.45		0.21	50.80	362.93	2.01	3.73	4.20			2.66	0.00	0.00	
0.00	0.00	0.00														

***** HYDRAULIC PARAMETER VALUES

ELEM TIDAL NO. VELO	BEGIN DISPRSN	ENDING MEAN	FLOW	PCT	ADVCTV	TRAVEL	DEPTH	WIDTH	VOLUME	SURFACE	X-SECT	TIDAL
	DIST	DIST								AREA	AREA	
	km	km	m³/s		EFF	VELO	TIME			m²	m²	PRISM
m/s	m²/s	m/s			m/s	days	m	m	m³	m²	m³	
8	5.56	5.36	0.12407	0.0	0.00964	0.24	0.88	14.63	2562.01	2911.37	12.87	1890.67
0.003	0.053	0.010										
9	5.36	5.16	0.12741	0.0	0.00990	0.23	0.88	14.63	2562.01	2911.37	12.87	2155.60
0.004	0.060	0.010										
10	5.16	4.96	0.13075	0.0	0.01016	0.23	0.88	14.63	2562.01	2911.37	12.87	2420.54
0.004	0.068	0.010										
11	4.96	4.76	0.13409	0.0	0.01041	0.22	0.88	14.63	2562.01	2911.37	12.87	2685.47
0.005	0.075	0.010										
12	4.76	4.57	0.13743	0.0	0.01067	0.22	0.88	14.63	2562.01	2911.37	12.87	2950.41
0.005	0.082	0.011										
13	4.57	4.37	0.14076	0.0	0.01093	0.21	0.88	14.63	2562.01	2911.37	12.87	3215.34
0.006	0.090	0.011										
14	4.37	4.17	0.14410	0.0	0.01119	0.21	0.88	14.63	2562.01	2911.37	12.87	3480.28
0.006	0.097	0.011										
15	4.17	3.97	0.14744	0.0	0.01145	0.20	0.88	14.63	2562.01	2911.37	12.87	3745.21
0.006	0.105	0.011										
16	3.97	3.77	0.15078	0.0	0.01171	0.20	0.88	14.63	2562.01	2911.37	12.87	4010.15
0.007	0.112	0.012										
17	3.77	3.57	0.15412	0.0	0.01197	0.19	0.88	14.63	2562.01	2911.37	12.87	4275.08
0.007	0.119	0.012										
TOT						2.14			25620.06	29113.70		
AVG					0.0108		0.88	14.63			12.87	

CUM

3.39

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM PO4	ENDING ALG	SAT MAC	REAER COLI	BOD#1 NCM	BOD#1 NCM	ABOD#1	BOD#2	BOD#2	ABOD#2	BKGD	FULL	CORR	ORGN	ORGN	NH3	NH3	DENIT	
NO. SRCE	DIST PROD	D.O. PROD	RATE DECAY	DECAY	SETT	DECAY	DECAY	SETT	DECAY	SOD	SOD	SOD	DECAY	SETT	DECAY	SRCE	RATE	
			mg/L	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	
*	**	**		1/da	1/da	1/da												
8	5.361	7.56	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.11	4.11	4.11	0.05	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
9	5.162	7.55	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.13	4.13	4.13	0.05	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
10	4.963	7.55	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.14	4.14	4.14	0.05	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
11	4.764	7.54	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.16	4.16	4.16	0.05	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
12	4.565	7.53	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.17	4.17	4.17	0.05	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
13	4.366	7.52	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.19	4.19	4.19	0.05	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
14	4.167	7.51	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.20	4.20	4.20	0.05	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
15	3.968	7.51	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.22	4.22	4.22	0.05	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
16	3.769	7.50	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.23	4.23	4.23	0.05	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
17	3.570	7.49	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.25	4.25	4.25	0.05	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
Avg	20	DEG C	RATE	0.80	0.20	0.05	0.00	0.03	0.05	0.00	2.20			0.12	0.03	0.00	0.00	0.00
0.00				0.00	0.00	0.00												

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

ELEM A	ENDING MACRO	TEMP COLI	SALN NCM	CM-I mg/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL
NO. #	DIST g/m³	DEG C #/100mL	PPT MG/L													
8 25.28	5.361 0.00	29.94 0.	0.12 0.00	12.61	366.38	1.47	4.69	4.76	4.95	4.76	2.28	0.00	0.00	0.00	0.00	0.00
9 23.66	5.162 0.00	29.99 0.	0.13 0.00	13.61	366.29	1.45	4.52	4.69	4.75	4.69	2.34	0.00	0.00	0.00	0.00	0.00
10 22.04	4.963 0.00	30.05 0.	0.14 0.00	14.56	366.20	1.43	4.36	4.62	4.58	4.62	2.39	0.00	0.00	0.00	0.00	0.00
11 20.42	4.764 0.00	30.11 0.	0.15 0.00	15.47	366.12	1.43	4.22	4.55	4.42	4.55	2.44	0.00	0.00	0.00	0.00	0.00
12 18.80	4.565 0.00	30.17 0.	0.16 0.00	16.33	366.04	1.42	4.10	4.49	4.28	4.49	2.48	0.00	0.00	0.00	0.00	0.00
13 17.18	4.366 0.00	30.22 0.	0.17 0.00	17.15	365.97	1.42	3.98	4.43	4.16	4.43	2.53	0.00	0.00	0.00	0.00	0.00
14 15.56	4.167 0.00	30.28 0.	0.18 0.00	17.93	365.90	1.42	3.88	4.38	4.04	4.38	2.57	0.00	0.00	0.00	0.00	0.00
15 13.94	3.968 0.00	30.34 0.	0.19 0.00	18.67	365.83	1.42	3.79	4.33	3.93	4.33	2.61	0.00	0.00	0.00	0.00	0.00
16 12.32	3.769 0.00	30.39 0.	0.20 0.00	19.38	365.75	1.42	3.71	4.28	3.83	4.28	2.64	0.00	0.00	0.00	0.00	0.00
17 10.70	3.570 0.00	30.45 0.	0.21 0.00	19.96	365.38	1.42	3.63	4.24	3.74	4.24	2.67	0.00	0.00	0.00	0.00	0.00

FINAL REPORT BT01
 REACH NO. 5 BT-10 to BT-11

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH INPUTS																
ELEM PHOS	TYPE CHL	FLOW COLI	TEMP NCM	SALN	CM-I deg C	CM-II ppt	DO MG/L	BOD#1 IN MG/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN	PHOS mg/L
NO. #		µg/L	#/100mL	MG/L												
18 0.00	UPR RCH 10.70	0.15412 0.00	30.45 0.00	0.21	19.96	365.38	1.42	3.63	4.24	3.74	4.24	2.67	0.00	0.00	0.00	0.00

Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

EACH	INCR	0.02750	30.06	0.16	12.80	334.30	1.50	3.63	4.07		2.54	0.00	0.00
0.00	0.00	0.00											

***** HYDRAULIC PARAMETER VALUES

ELEM TIDAL NO. VELO	BEGIN DISPRSN DIST km m/s	ENDING MEAN DIST km m/s	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³
18 0.003	3.57 0.091	3.36 0.006	0.18162	0.0	0.00579	0.42	1.66	18.90	6588.54	3969.00	31.37	4672.38
19 0.004	3.36 0.099	3.15 0.007	0.20912	0.0	0.00667	0.36	1.66	18.90	6588.54	3969.00	31.37	5069.67
20 0.004	3.15 0.106	2.94 0.008	0.23662	0.0	0.00754	0.32	1.66	18.90	6588.54	3969.00	31.37	5466.97
21 0.004	2.94 0.114	2.73 0.008	0.26412	0.0	0.00842	0.29	1.66	18.90	6588.54	3969.00	31.37	5864.27
22 0.004	2.73 0.122	2.52 0.009	0.29162	0.0	0.00929	0.26	1.66	18.90	6588.54	3969.00	31.37	6261.57
23 0.005	2.52 0.129	2.31 0.010	0.31912	0.0	0.01017	0.24	1.66	18.90	6588.54	3969.00	31.37	6658.86
24 0.005	2.31 0.137	2.10 0.011	0.34662	0.0	0.01105	0.22	1.66	18.90	6588.54	3969.00	31.37	7056.16
25 0.005	2.10 0.145	1.89 0.012	0.37412	0.0	0.01192	0.20	1.66	18.90	6588.54	3969.00	31.37	7453.46
TOT						2.32			52708.32	31752.00		
AVG					0.0084		1.66	18.90			31.37	
CUM						5.71						

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS

ELEM PO4	ENDING ALG	SAT MAC	REAER COLI	BOD#1 NCM	BOD#1 NCM	ABOD#1 NCM	BOD#2 NCM	BOD#2 NCM	ABOD#2 NCM	BKGD	FULL	CORR	ORGN	ORGN	NH3	NH3	DENIT
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Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

NO. SRCE	DIST PROD	D.O. PROD	RATE DECAY	DECAY 1/da	SETT 1/da	DECAY 1/da	DECAY 1/da	SETT 1/da	DECAY 1/da	SOD *	SOD *	SOD *	DECAY 1/da	SETT 1/da	DECAY 1/da	SRCE	RATE 1/da	
	*	**	**	mg/L	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	
18 0.00	3.360 0.00	7.50 0.00	0.51 0.00	0.48 0.00	0.06 0.00	0.00 0.00	0.04 0.04	0.06 0.06	0.00 0.00	1.54 1.54	1.54 1.54	1.54 1.54	0.08 0.08	0.03 0.03	0.00 0.00	0.00 0.00	0.00 0.00	
19 0.00	3.150 0.00	7.50 0.00	0.51 0.00	0.49 0.00	0.06 0.00	0.00 0.00	0.04 0.04	0.06 0.06	0.00 0.00	1.54 1.54	1.54 1.54	1.54 1.54	0.08 0.08	0.03 0.03	0.00 0.00	0.00 0.00	0.00 0.00	
20 0.00	2.940 0.00	7.51 0.00	0.51 0.00	0.49 0.00	0.06 0.00	0.00 0.00	0.04 0.04	0.06 0.06	0.00 0.00	1.53 1.53	1.53 1.53	1.53 1.53	0.08 0.08	0.03 0.03	0.00 0.00	0.00 0.00	0.00 0.00	
21 0.00	2.730 0.00	7.52 0.00	0.51 0.00	0.49 0.00	0.06 0.00	0.00 0.00	0.04 0.04	0.06 0.06	0.00 0.00	1.53 1.53	1.53 1.53	1.53 1.53	0.08 0.08	0.03 0.03	0.00 0.00	0.00 0.00	0.00 0.00	
22 0.00	2.520 0.00	7.52 0.00	0.51 0.00	0.50 0.00	0.06 0.00	0.00 0.00	0.04 0.04	0.06 0.06	0.00 0.00	1.52 1.52	1.52 1.52	1.52 1.52	0.08 0.08	0.03 0.03	0.00 0.00	0.00 0.00	0.00 0.00	
23 0.00	2.310 0.00	7.53 0.00	0.51 0.00	0.50 0.00	0.06 0.00	0.00 0.00	0.04 0.04	0.06 0.06	0.00 0.00	1.52 1.52	1.52 1.52	1.52 1.52	0.08 0.08	0.03 0.03	0.00 0.00	0.00 0.00	0.00 0.00	
24 0.00	2.100 0.00	7.54 0.00	0.51 0.00	0.50 0.00	0.06 0.00	0.00 0.00	0.04 0.04	0.06 0.06	0.00 0.00	1.51 1.51	1.51 1.51	1.51 1.51	0.08 0.08	0.03 0.03	0.00 0.00	0.00 0.00	0.00 0.00	
25 0.00	1.890 0.00	7.54 0.00	0.51 0.00	0.50 0.00	0.06 0.00	0.00 0.00	0.04 0.04	0.06 0.06	0.00 0.00	1.51 1.51	1.51 1.51	1.51 1.51	0.09 0.09	0.03 0.03	0.00 0.00	0.00 0.00	0.00 0.00	
Avg 0.00	20	DEG C	RATE	0.42	0.41	0.05	0.00	0.03	0.05	0.00	0.80			0.17	0.03	0.00	0.00	0.00
				*	g/m ² /d		**	mg/L/day										

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM A	ENDING MACRO	TEMP COLI	SALN NCM	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	TOTN	PHOS	CHL
NO. #	DIST g/m ³	DEG C #/100mL	PPT MG/L	MG/L	IN MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
18 10.59	3.360 0.00	30.40 0.	0.20 0.00	18.88 0.	360.68 0.	1.46 0.	3.60 0.	4.18 3.58	3.71 4.14	4.18 4.14	2.65 2.62	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
19 10.48	3.150 0.00	30.35 0.	0.20 0.00	18.09 0.	357.25 0.	1.48 0.	3.58 0.	4.14 3.69	3.69 4.14	4.14 4.14	2.62 2.60	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
20 10.36	2.940 0.00	30.30 0.	0.19 0.00	17.48 0.	354.61 0.	1.50 0.	3.56 0.	4.11 3.66	3.66 4.11	4.11 4.11	2.60 2.60	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00

Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

21	2.730	30.26	0.19	16.99	352.51	1.51	3.55	4.09	3.65	4.09	2.59	0.00	0.00	0.00	0.00
10.25	0.00	0.	0.00												
22	2.520	30.21	0.18	16.60	350.81	1.52	3.53	4.07	3.63	4.07	2.58	0.00	0.00	0.00	0.00
10.14	0.00	0.	0.00												
23	2.310	30.16	0.17	16.28	349.39	1.52	3.52	4.05	3.62	4.05	2.57	0.00	0.00	0.00	0.00
10.02	0.00	0.	0.00												
24	2.100	30.11	0.17	16.00	348.21	1.53	3.52	4.04	3.61	4.04	2.56	0.00	0.00	0.00	0.00
9.91	0.00	0.	0.00												
25	1.890	30.06	0.16	15.78	347.24	1.54	3.51	4.03	3.61	4.03	2.56	0.00	0.00	0.00	0.00
9.80	0.00	0.	0.00												

FINAL REPORT BT01
 REACH NO. 6 BT-11 to BT-12

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM	TYPE	FLOW	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2
PHOS	CHL A	COLI	NCM		MG/L	IN	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NO.			deg C	ppt										
mg/L	µg/L	#/100mL	MG/L											
26	UPR RCH	0.37412	30.06	0.16	15.78	347.24	1.54	3.51	4.03	3.61	4.03	2.56	0.00	0.00
0.00	9.80	0.00	0.00											
EACH	INCR	-	-0.00042											

***** HYDRAULIC PARAMETER VALUES *****

ELEM	BEGIN	ENDING	FLOW	PCT	ADVCTV	TRAVEL	DEPTH	WIDTH	VOLUME	SURFACE	X-SECT	TIDAL
TIDAL	DISPRSN	MEAN										
NO.	DIST	DIST	EFF	VELO	TIME					AREA	AREA	PRISM
VELO		VELO										
m/s	km	km	m³/s	m/s	days	m	m	m³	m²	m²	m³	
	m²/s	m/s										
26	1.89	1.66	0.37370	0.0	0.01193	0.22	1.37	22.86	7077.91	5166.36	31.32	8071.35
0.006	0.134	0.012										

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

27	1.66	1.44	0.37328	0.0	0.01192	0.22	1.37	22.86	7077.91	5166.36	31.32	8689.25
0.006	0.144	0.012										
28	1.44	1.21	0.37286	0.0	0.01191	0.22	1.37	22.86	7077.91	5166.36	31.32	9307.15
0.007	0.155	0.012										
29	1.21	0.99	0.37244	0.0	0.01189	0.22	1.37	22.86	7077.91	5166.36	31.32	9925.04
0.007	0.165	0.012										
30	0.99	0.76	0.37202	0.0	0.01188	0.22	1.37	22.86	7077.91	5166.36	31.32	10542.94
0.007	0.175	0.012										
TOT						1.10			35389.57	25831.80		
AVG					0.0119		1.37	22.86				31.32
CUM						6.81						

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS

ELEM	ENDING	SAT	REAER	BOD#1	BOD#1	ABOD#1	BOD#2	BOD#2	ABOD#2	BKGD	FULL	CORR	ORGN	ORGN	NH3	NH3	DENIT	
PO4	ALG	MAC	COLI	NCM	NCM													
NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	DECAY	SETT	DECAY	SOD	SOD	SOD	DECAY	SETT	DECAY	SRCE	RATE	
SRCE	PROD	PROD	DECAY	DECAY	SETT													
			mg/L	1/da	1/da	1/da	1/da	1/da	1/da									
*	**	**	1/da	1/da	1/da												1/da	
26	1.664	7.53	0.62	0.44	0.06	0.00	0.04	0.06	0.00	0.19	0.19	0.19	0.15	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
27	1.438	7.52	0.62	0.48	0.06	0.00	0.05	0.06	0.00	0.19	0.19	0.19	0.20	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
28	1.212	7.51	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.19	0.19	0.19	0.22	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
29	0.986	7.50	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.19	0.19	0.19	0.22	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
30	0.760	7.49	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.19	0.19	0.19	0.23	0.03	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00													
AVG	20	DEG C	RATE	0.51	0.31	0.05	0.00	0.03	0.05	0.00	0.10			0.16	0.03	0.00	0.00	0.00
0.00				0.00	0.00	0.00												

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES

ELEM A NO. μg/L	ENDING MACRO DIST g/m ³	TEMP DEG C	SALN NCM #/100mL	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL mg/L
26	1.664	30.14	0.17	15.78	347.24	1.80	3.65	4.04	3.75	4.04	2.71	0.00	0.00	0.00	0.00	
10.24	0.00	0.	0.00													
27	1.438	30.22	0.18	15.78	347.24	1.95	3.74	4.04	3.84	4.04	2.82	0.00	0.00	0.00	0.00	
10.68	0.00	0.	0.00													
28	1.212	30.29	0.18	15.78	347.24	2.07	3.81	4.04	3.92	4.04	2.92	0.00	0.00	0.00	0.00	
11.12	0.00	0.	0.00													
29	0.986	30.37	0.19	15.78	347.24	2.15	3.87	4.04	3.99	4.04	3.01	0.00	0.00	0.00	0.00	
11.56	0.00	0.	0.00													
30	0.760	30.45	0.20	15.78	347.24	2.21	3.92	4.03	4.04	4.03	3.09	0.00	0.00	0.00	0.00	
12.00	0.00	0.	0.00													

FINAL REPORT BT01
 REACH NO. 7 BT-12 to ICWW

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS

ELEM PHOS NO. mg/L	TYPE CHL A	FLOW COLI μg/L	TEMP NCM deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	
31	UPR RCH	0.37202	30.45	0.20	15.78	347.24	2.21	3.92	4.03	4.04	4.03	3.09	0.00	0.00	
0.00	12.00	0.00	0.00												
EACH	INCR	-0.00035													

***** HYDRAULIC PARAMETER VALUES

ELEM TIDAL	BEGIN DISPRSN	ENDING MEAN	FLOW	PCT	ADVCTV	TRAVEL	DEPTH	WIDTH	VOLUME	SURFACE	X-SECT	TIDAL
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Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

NO. VELO	DIST km m/s	DIST VELO km m/s	EFF m ³ /s	VELO m/s	TIME days			AREA m ³	AREA m ²	PRISM m ³		
31 0.008	0.76 0.184	0.57 0.012	0.37167	0.0	0.01187	0.19	1.37	22.86	5950.46	4343.40	31.32	11062.41
32 0.008	0.57 0.192	0.38 0.012	0.37131	0.0	0.01186	0.19	1.37	22.86	5950.46	4343.40	31.32	11581.88
33 0.009	0.38 0.201	0.19 0.012	0.37096	0.0	0.01184	0.19	1.37	22.86	5950.46	4343.40	31.32	12101.35
34 0.009	0.19 0.210	0.00 0.012	0.37061	0.0	0.01183	0.19	1.37	22.86	5950.46	4343.40	31.32	12620.82
TOT					0.0119	0.74			23801.83	17373.60		
AVG							1.37	22.86			31.32	
CUM						7.55						

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM	ENDING	SAT	REAER	BOD#1	BOD#1	ABOD#1	BOD#2	BOD#2	ABOD#2	BKGD	FULL	CORR	ORGN	ORGN	NH3	NH3	DENIT	
PO4	ALG	MAC	COLI	NCM	NCM													
NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	DECAY	SETT	DECAY	SOD	SOD	SOD	DECAY	SETT	DECAY	SRCE	RATE	
SRCE	PROD	PROD	DECAY	DECAY	SETT													
*	**	**	mg/L	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	
*	**	**	1/da	1/da	1/da													
31 0.00	0.570 0.00	7.46 0.00	0.62 0.00	0.51 0.00	0.06 0.00	0.00 0.00	0.05 0.05	0.06 0.06	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.15 0.15	0.03 0.03	0.00 0.00	0.00 0.00	0.00 0.00	
32 0.00	0.380 0.00	7.43 0.00	0.62 0.00	0.51 0.00	0.06 0.00	0.00 0.00	0.05 0.05	0.06 0.07	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.15 0.16	0.03 0.03	0.00 0.00	0.00 0.00	0.00 0.00	
33 0.00	0.190 0.00	7.40 0.00	0.63 0.00	0.52 0.00	0.07 0.00	0.00 0.00	0.05 0.05	0.07 0.07	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.16 0.17	0.03 0.03	0.00 0.00	0.00 0.00	0.00 0.00	
34 0.00	0.000 0.00	7.37 0.00	0.63 0.00	0.52 0.00	0.07 0.00	0.00 0.00	0.05 0.05	0.07 0.07	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.17 0.17	0.03 0.03	0.00 0.00	0.00 0.00	0.00 0.00	
Avg 0.00	20	DEG C	RATE	0.51	0.31	0.05	0.00	0.03	0.05	0.00	0.00			0.10	0.03	0.00	0.00	0.00
*	g/m ² /d		**	mg/L/day														

***** WATER QUALITY CONSTITUENT VALUES

ELEM A NO. μg/L	ENDING MACRO DIST g/m ³	TEMP COLI DEG C	SALN NCM PPT #/100mL	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL mg/L
31 14.52	0.570 0.00	30.70 0.	0.17 0.00	15.78	347.23	2.31	3.97	3.95	4.12	3.95	3.00	0.00	0.00	0.00	0.00	
32 17.05	0.380 0.00	30.95 0.	0.15 0.00	15.78	347.16	2.40	4.01	3.87	4.18	3.87	2.92	0.00	0.00	0.00	0.00	
33 19.58	0.190 0.00	31.21 0.	0.12 0.00	15.82	346.24	2.47	4.04	3.78	4.23	3.78	2.83	0.00	0.00	0.00	0.00	
34 22.10	0.000 0.00	31.46 0.	0.10 0.00	16.21	335.27	2.68	4.05	3.67	4.27	3.67	2.75	0.00	0.00	0.00	0.00	

STREAM SUMMARY
 BT01

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

TRAVEL TIME = 7.55 DAYS

MAXIMUM EFFLUENT = 0.00 PERCENT

FLOW	=	0.12073	TO	0.37412	m ³ /s
DISPERSION	=	0.0079	TO	0.2095	m ² /s
VELOCITY	=	0.00579	TO	0.01404	m/s
DEPTH	=	0.71	TO	1.66	m
WIDTH	=	14.32	TO	22.86	m

BOD DECAY	=	0.23	TO	0.52	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	0.00	TO	4.25	g/m ² /d
NH3 SOURCE	=	0.00	TO	0.00	g/m ² /d
REAERATION	=	0.51	TO	1.18	per day
BOD SETTLING	=	0.06	TO	0.07	per day
NBOD DECAY	=	0.04	TO	0.23	per day
NBOD SETTLING	=	0.03	TO	0.03	per day

Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

TEMPERATURE = 29.69 TO 31.46 deg C
 DISSOLVED OXYGEN = 1.42 TO 2.68 mg/L

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	AVG	AVG
FLOW AT	AVERAGE	AVG								
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH
EOR	VELO	DEPTH	WIDTH							
cfs	fps	ft	ft						m	m
1 Weir #3 to Bayou Cane										
4.878	0.042	2.494	46.98	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760
2 Bayou Cane to BT-08										
5.237	0.039	2.854	46.98	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870
3 BT-08 to BT-09										
4.263	0.042	2.330	46.98	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710
4 BT-09 to BT-10										
5.442	0.035	2.887	48.00	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880
5 BT-10 to BT-11										
13.210	0.028	5.446	62.01	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660
6 BT-11 to BT-12										
13.136	0.039	4.495	75.00	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370
7 BT-12 to ICWW										
13.086	0.039	4.495	75.00	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370

.....EXECUTION COMPLETED

**APPENDIX C2 – CALIBRATION
WATER QUALITY INPUT JUSTIFICATIONS
(Lower Terrebonne Model)**

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)			
DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
OCEAN EXCHANGE RATIO	1		Tidal impacts considered to be significant
TIDE HEIGHT	0.13	meters	Site ICWW (located in Intercoastal Waterway)
MAXIMUM ITERATION LIMIT	200		Adjusted for convergence
EFFECTIVE BOD DUE TO ALGAE	0.01	mg/L BOD /ug chl a/ day	Calibration
ALGAE OXYGEN PRODUCTION	0	mg O / ug chl a / day	Turned off for simulation
HYDRAULIC CALCULATION METHOD	2		Widths and depths

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)						
DATA TYPE 8 - REACH IDENTIFICATION DATA						
Reach	ID	Name	Upstream River Kilometer	Downstream River Kilometer	Element Length, km	Data Source
1	BT	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	6.93	6.72	0.2100	GIS and survey data
2	BT	Lower Bayou Terrebonne, Bayou Cane to BT08	6.72	6.49	0.2300	GIS and survey data
3	BT	Lower Bayou Terrebonne, BT08 to BT09	6.49	5.56	0.1860	GIS and survey data
4	BT	Lower Bayou Terrebonne, BT09 to BT10	5.56	3.57	0.1990	GIS and survey data
5	BT	Lower Bayou Terrebonne, BT10 to BT11	3.57	1.89	0.2100	GIS and survey data
6	BT	Lower Bayou Terrebonne, BT11 to BT12	1.89	0.76	0.2260	GIS and survey data
7	BT	Lower Bayou Terrebonne, BT12 to ICWW	0.76	0.00	0.1900	GIS and survey data

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)														
DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS														
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source	
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	0	0	14.32	Site BT07	0	0	0.76	Site BT07	0	Best professional judgement and knowledge of the area - value used in all reaches	0.03	Environmental Engineering, P.E. Examination Guide and Handbook by Christopher King, p. 113	
2	Lower Bayou Terrebonne, Bayou Cane to BT08	0	0	14.32	Site BT08	0	0	0.87	Site BT08	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	
3	Lower Bayou Terrebonne, BT08 to BT09	0	0	14.32	Site BT09	0	0	0.71	Site BT09	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	
4	Lower Bayou Terrebonne, BT09 to BT10	0	0	14.63	Site BT10	0	0	0.88	Site BT10	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)														
DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS														
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source	
5	Lower Bayou Terrebonne, BT10 to BT11	0	0	18.90	Site BT11	0	0	1.66	Site BT11	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	
6	Lower Bayou Terrebonne, BT11 to BT12	0	0	22.86	Site BT12	0	0	1.37	Site BT12	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	
7	Lower Bayou Terrebonne, BT12 to ICWW	0	0	22.86	Site BT12	0	0	1.37	Site BT12	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)									
DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS									
Reach	Name	Tidal Range	Data Source	"a"	Data Source	"b"	"c"	"d"	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	0.69	Ratio of the tidal amplitude at BT07 to the amplitude at ICWW	18.00	Calibration	0.833	0.00	1.00	Constant values used for advective dispersion
2	Lower Bayou Terrebonne, Bayou Cane to BT08	0.66	Average of the values used in reaches 1 and 3	18.00	Calibration	0.833	0.00	1.00	Constant values used for advective dispersion
3	Lower Bayou Terrebonne, BT08 to BT09	0.62	Ratio of the tidal amplitude at BT09 to the amplitude at ICWW	18.00	Calibration	0.833	0.00	1.00	Constant values used for advective dispersion
4	Lower Bayou Terrebonne, BT09 to BT10	0.70	Average of the values used in reaches 3 and 5	18.00	Calibration	0.833	0.00	1.00	Constant values used for advective dispersion
5	Lower Bayou Terrebonne, BT10 to BT11	0.77	Ratio of the tidal amplitude at BT10 to the amplitude at ICWW	18.00	Calibration	0.833	0.00	1.00	Constant values used for advective dispersion
6	Lower Bayou Terrebonne, BT11 to BT12	0.92	Ratio of the tidal amplitude at BT12 to the amplitude at ICWW	18.00	Calibration	0.833	0.00	1.00	Constant values used for advective dispersion
7	Lower Bayou Terrebonne, BT12 to ICWW	0.92	Ratio of the tidal amplitude at BT12 to the amplitude at ICWW	18.00	Calibration	0.833	0.00	1.00	Constant values used for advective dispersion

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)							
DATA TYPE 11 - INITIAL CONDITIONS							
Reach	Name	Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chl a	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	30.43	0.20	1.60	24-hour average of site BT07 continuous monitor data; DO set to the minimum + 1 (same as headwater value)	10.1	BT07 laboratory data
2	Lower Bayou Terrebonne, Bayou Cane to BT08	30.43	0.20	2.85	24-hour average of site BT07 continuous monitor data	10.1	BT07 laboratory data
3	Lower Bayou Terrebonne, BT08 to BT09	29.69	0.17	4.42	BT08 insitu data	15.5	BT08 laboratory data
4	Lower Bayou Terrebonne, BT09 to BT10	29.88	0.11	2.18	24-hour average of site BT09 continuous monitor data	26.9	BT09 laboratory data
5	Lower Bayou Terrebonne, BT10 to BT11	30.45	0.21	2.01	24-hour average of site BT10 continuous monitor data	10.7	BT10 laboratory data

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)							
DATA TYPE 11 - INITIAL CONDITIONS							
Reach	Name	Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chl a	Data Source
6	Lower Bayou Terrebonne, BT11 to BT12	30.06	0.16	1.50	BT11 insitu data	9.8	BT11 laboratory data
7	Lower Bayou Terrebonne, BT12 to ICWW	30.45	0.20	1.93	24-hour average of site BT12 continuous monitor data	12.0	BT12 laboratory data

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)																			
DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS																			
REACH	NAME	K ₂ OPT	K ₂ "A"	K ₂ "B"	K ₂ "C"	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Anearobic BOD1 Dec Rate (1/day)	Aerobic BOD2 Dec Rate (1/day)	Anearobic BOD2 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	BOD2 SETT RATE (1/day)	Data Source	SETTLED BOD1 CONV TO SOD	SETTLED BOD2 CONV TO SOD	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	19	0.0	0	0	LA Equation	2.0	Calibration	0.31		0.03		Site BT07	0.05	0.05	Calibration	0	0	BOD not converted to SOD
2	Lower Bayou Terrebonne, Bayou Cane to BT08	19	0.0	0	0	LA Equation	2.0	Calibration	0.24		0.03		Site BT08	0.05	0.05	Calibration	0	0	BOD not converted to SOD
3	Lower Bayou Terrebonne, BT08 to BT09	19	0.0	0	0	LA Equation	2.2	Calibration	0.22		0.03		Site BT09	0.05	0.05	Calibration	0	0	BOD not converted to SOD
4	Lower Bayou Terrebonne, BT09 to BT10	19	0.0	0	0	LA Equation	2.2	Calibration	0.20		0.03		Site BT10	0.05	0.05	Calibration	0	0	BOD not converted to SOD
5	Lower Bayou Terrebonne, BT10 to BT11	19	0.0	0	0	LA Equation	0.8	Calibration	0.41		0.03		Site BT11	0.05	0.05	Calibration	0	0	BOD not converted to SOD
6	Lower Bayou Terrebonne, BT11 to BT12	19	0.0	0	0	LA Equation	0.1	Calibration	0.31		0.03		Site BT12	0.05	0.05	Calibration	0	0	BOD not converted to SOD

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)																			
DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS																			
REACH	NAME	K ₂ OPT	K ₂ "A"	K ₂ "B"	K ₂ "C"	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Anearobic BOD1 Dec Rate (1/day)	Aerobic BOD2 Dec Rate (1/day)	Anearobic BOD2 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	BOD2 SETT RATE (1/day)	Data Source	SETTLED BOD1 CONV TO SOD	SETTLED BOD2 CONV TO SOD	Data Source
7	Lower Bayou Terrebonne, BT12 to ICWW	19	0.0	0	0	LA Equation	0.0	Calibration	0.31		0.03		Site BT12	0.05	0.05	Calibration	0	0	BOD not converted to SOD

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)				
DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS				
Reach	Name	NBOD decay rate, 1/day	NBOD settling rate, 1/day	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	0.09	0.025	Site BT07; Calibration
2	Lower Bayou Terrebonne, Bayou Cane to BT08	0.12	0.025	Site BT08; Calibration
3	Lower Bayou Terrebonne, BT08 to BT09	0.09	0.025	Site BT09; Calibration
4	Lower Bayou Terrebonne, BT09 to BT10	0.12	0.025	Site BT04; Calibration
5	Lower Bayou Terrebonne, BT10 to BT11	0.17	0.025	Site BT11; Calibration
6	Lower Bayou Terrebonne, BT11 to BT12	0.16	0.025	Site BT12; Calibration
7	Lower Bayou Terrebonne, BT12 to ICWW	0.10	0.025	Site ICWW; Calibration

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)									
DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Outflow, cms	Incr. Inflow, cms	Data Source	Temp, deg C	Sal., ppt	Cons.. Mat I, Chlo- rides	Cons., Mat II, Conduc- tivity.	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane		0.00926	Prorated based on distance	30.43	0.20	11.6	373.13	Temp, salinity, conductivity- 24-hr continuous monitor data, Chlorides-lab data for Site BT07
2	Lower Bayou Terrebonne, Bayou Cane to BT08		0.01014	Prorated based on distance	29.95	0.10	10.5	275.89	Temp, salinity, conductivity- 24-hr continuous monitor data, Chlorides-lab data for Site BC01 (residual influence of Bayou Cane)
3	Lower Bayou Terrebonne, BT08 to BT09	- 0.02758		Prorated based on distance					WQ data not needed for outflow
4	Lower Bayou Terrebonne, BT09 to BT10		0.03339	Prorated based on distance	30.45	0.21	50.8	362.93	Temp, salinity, conductivity- 24-hr continuous monitor data, Chlorides-lab data for Site BT10

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)									
DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Outflow, cms	Incr. Inflow, cms	Data Source	Temp, deg C	Sal., ppt	Cons.. Mat I, Chlo- rides	Cons., Mat II, Conduc- tivity.	Data Source
5	Lower Bayou Terrebonne, BT10 to BT11		0.22	Prorated based on distance	30.06	0.16	12.8	334.30	Temp, salinity, and conductivity- 24-hr continuous monitor data, Chlorides-lab data for Site BT11
6	Lower Bayou Terrebonne, BT11 to BT12	- 0.00210		Prorated based on distance					WQ data not needed for outflow
7	Lower Bayou Terrebonne, BT12 to ICWW	- 0.00141		Prorated based on distance					WQ data not needed for outflow

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)									
DATA TYPES 17 - INCREMENTAL DATA FOR DO, BOD, AND NITROGEN									
Reach	Reach Name	DO, mg/l	UCBOD 1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH ³ -N, mg/L	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	2.85	4.62		2.08			4.07	DO-24-hr continuous monitor data; BOD-lab data for Site BT07
2	Lower Bayou Terrebonne, Bayou Cane to BT08	1.74	3.81		1.83			4.42	DO-24-hr continuous monitor data; BOD-lab data for Site BC01 (residual influence of Bayou Cane)
3	Lower Bayou Terrebonne, BT08 to BT09								WQ data not needed for outflow
4	Lower Bayou Terrebonne, BT09 to BT10	2.01	3.73		2.66			4.20	DO-24-hr continuous monitor data; BOD-lab data for Site BT10
5	Lower Bayou Terrebonne, BT10 to BT11	1.50	3.63		2.54			4.07	DO-insitu data; BOD-lab data for Site BT11
6	Lower Bayou Terrebonne, BT11 to BT12								WQ data not needed for outflow

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)									
DATA TYPES 17 - INCREMENTAL DATA FOR DO, BOD, AND NITROGEN									
Reach	Reach Name	DO, mg/l	UCBOD 1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH ³ -N, mg/L	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
7	Lower Bayou Terrebonne, BT12 to ICWW								WQ data not needed for outflow

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)								
DATA TYPES 18 - INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES								
Reach	Reach Name	Phosph., mg/L	Data Source	Chl a, ug/L	Coli., # / 100 mL	Data Source	NCM	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane		Phosphorus not simulated	10.1		Chl a data based on lab data for Site BT07		NCM parameter not used
2	Lower Bayou Terrebonne, Bayou Cane to BT08		Phosphorus not simulated	5.2		Chl a data based on lab data for Site BC01 (residual influence of Bayou Cane)		NCM parameter not used
3	Lower Bayou Terrebonne, BT08 to BT09		Phosphorus not simulated			Chl a data not needed for outflow		NCM parameter not used
4	Lower Bayou Terrebonne, BT09 to BT10		Phosphorus not simulated	10.7		Chl a data based on lab data for Site BT10		NCM parameter not used
5	Lower Bayou Terrebonne, BT10 to BT11		Phosphorus not simulated	9.8		Chl a data based on lab data for Site BT11		NCM parameter not used
6	Lower Bayou Terrebonne, BT11 to BT12		Phosphorus not simulated			Chl a data not needed for outflow		NCM parameter not used
7	Lower Bayou Terrebonne, BT12 to ICWW		Phosphorus not simulated			Chl a data not needed for outflow		NCM parameter not used

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)						
DATA TYPE 19 - NONPOINT SOURCES						
Reach	Reach Name	Length of Reach, km	UCBOD1 (kg/day)	NBOD (kg/day)	UCBOD2 (kg/day)	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	0.21	2.0	1.3	1.5	Calibration
2	Lower Bayou Terrebonne, Bayou Cane to BT08	0.23	0.5	1.9	2.0	Calibration
3	Lower Bayou Terrebonne, BT08 to BT09	0.93	25.0	1.6	12.0	Calibration
4	Lower Bayou Terrebonne, BT09 to BT10	1.99	17.0	10.0	5.0	Calibration
5	Lower Bayou Terrebonne, BT10 to BT11	1.68	100.0	14.0	18.0	Calibration
6	Lower Bayou Terrebonne, BT11 to BT12	1.13	87.0	42.0	16.0	Calibration
7	Lower Bayou Terrebonne, BT12 to ICWW	0.76	60.0	2.0	0.0	Calibration

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)								
DATA TYPES 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES								
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms	Temp, deg C	Sal, ppt	Conservative Material I	Conservative Material II	Data Source
Reach 1 Headwaters of Lower Bayou Terrebonne downstream of weir # 3	1	Not used	0.12890	30.43	0.2	11.6	373.13	Downstream of weir # 3, Bayou Terrebonne is tidal; headwater flow determined by interpolation and calibration to measured flows; temp, salinity, and conductivity-24-hr average continuous monitor data; chlorides- lab data for Site BT07

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)						
DATA TYPES 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN						
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	UCBOD2, mg/l	Data Source	
Reach 1 Headwaters of Lower Bayou Terrebonne downstream of weir # 3	1.60	4.62	2.08	4.07	DO-24-hour continuous monitor data; BOD-lab data for Site BT07; DO value based on the continuous monitor minimum + 1 mg/L	

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)

DATA TYPES 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES

Headwater Name	Chlorophyll a, ug/L	Date Source
Reach 1 Headwaters of Lower Bayou Terrebonne downstream of weir # 3	10.1	Chlorophyll a data obtained from Site BT07 lab data

Bayou Terrebonne 120301 Calibration Justifications (Lower Terrebonne Model)			
DATA TYPES 27 - LOWER BOUNDARY CONDITIONS			
Survey Site Name: ICWW (for Bayou Terrebonne downstream of weir # 3)			
Parameter	Value	Units	Data Source
TEMPERATURE	31.46	degrees Celsius	Site ICWW continuous monitor data (24-hour average)
SALINITY	0.10	ppt	Site ICWW continuous monitor data (24-hour average)
CONSERVATIVE MATERIAL I	18.5	mg/L	Site ICWW lab data
CONSERVATIVE MATERIAL II	270.97	mg/L	Site ICWW continuous monitor data (24-hour average)
DISSOLVED OXYGEN	3.67	mg/L	Site ICWW continuous monitor data (24-hour average)
BIOCHEMICAL OXYGEN DEMAND 1	4.21	mg/L	Site ICWW BOD data
BIOCHEMICAL OXYGEN DEMAND 2	3.45	mg/L	Site ICWW BOD data
NBOD	2.73	mg/L	Site ICWW BOD data
CHLOROPHYLL A	22.1	ug/L	Site ICWW chlorophyll <u>a</u> data

APPENDIX D – CALIBRATION MODEL DEVELOPMENT

APPENDIX D1 – VECTOR DIAGRAM

APPENDIX D2 – REACH SETUP

APPENDIX D3 - CALIBRATION LOADING

APPENDIX D4 – FLOW CALCULATIONS

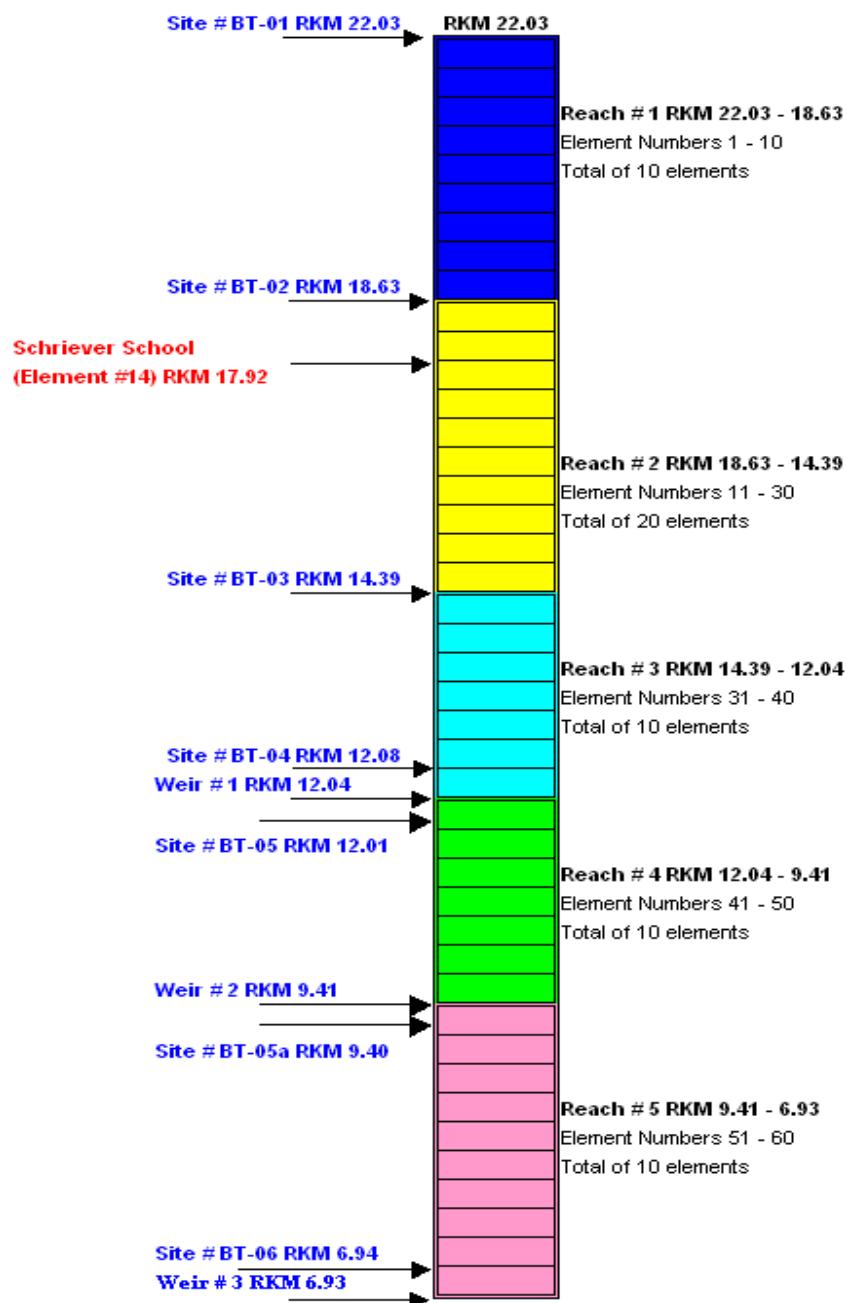
APPENDIX D1 – VECTOR DIAGRAM

Bayou Terrebonne Model Layout

Subsegment 120301

Upper Terrebonne

(Headwaters to Weir # 3)

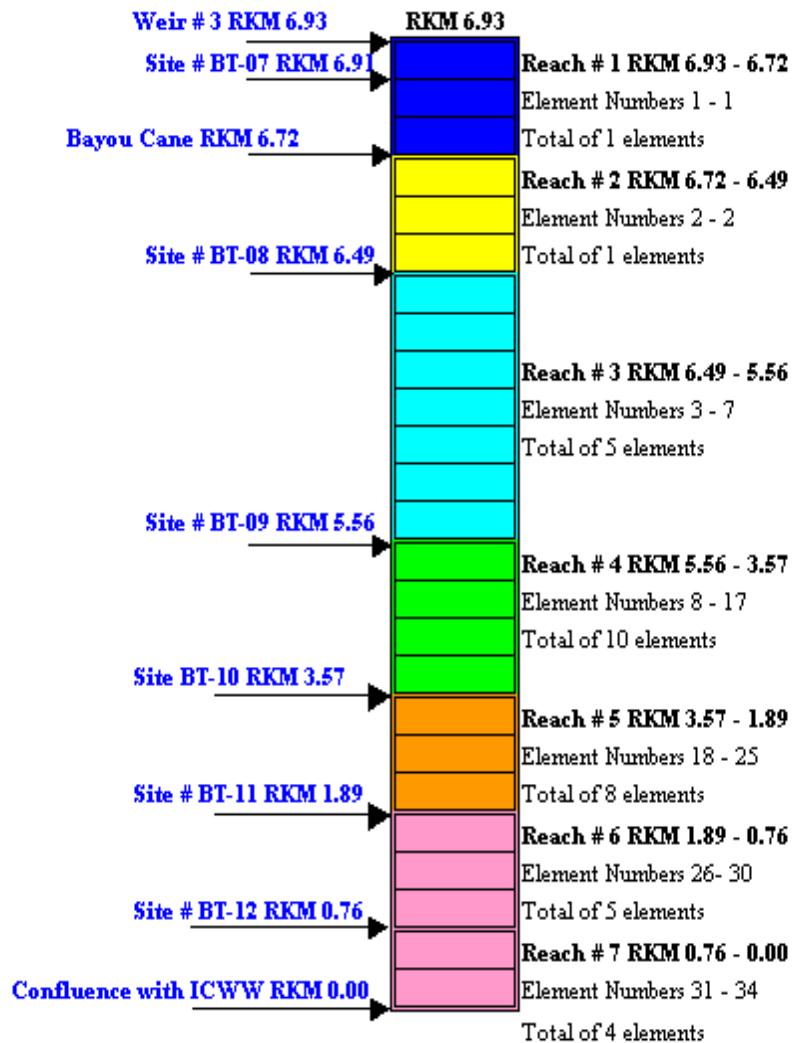


Bayou Terrebonne Model Layout

Subsegment 120301

Lower Terrebonne

(Weir #3 to the ICWW)



APPENDIX D2 – REACH SETUP

REACH AND ELEMENT LAYOUT FOR THE BAYOU TERREBONNE MODELS									
	REACH #	REACH DESCRIPTION	UPSTREAM RIVER KILOMETER	DOWNSTREAM RIVER KILOMETER	REACH LENGTH	NUMBER OF ELEMENTS	ELEMENT LENGTH	ACCUMULATIVE ELEMENT NUMBER	NOTES
Above the Sonic Weir	1	BT-01 to BT-02	22.03	18.63	3.4	10	0.34	10	
	2	BT-02 to BT-03	18.63	14.39	4.24	20	0.212	30	
	3	BT-03 to weir #1	14.39	12.04	2.35	10	0.235	40	
	4	Weir #1 to weir # 2	12.04	9.41	2.63	10	0.263	50	Glass Shop weir at the top of the reach
	5	Weir #2 to Weir #3	9.41	6.93	2.48	10	0.248	60	Coteau weir at the top of the reach
Below the Sonic Weir	1	Weir # 3 to Bayou Cane	6.93	6.72	0.21	1	0.21	1	Sonic weir at the top of the reach
		Bayou Cane	0.31	0	0.31	1	0.31		
	2	Bayou Cane to BT-08	6.72	6.49	0.23	1	0.23	2	
	3	BT-08 to BT-09	6.49	5.56	0.93	5	0.186	7	
	4	BT-09 to BT-10	5.56	3.57	1.99	10	0.199	17	
	5	BT-10 to BT-11	3.57	1.89	1.68	8	0.21	25	
	6	BT-11 to BT-12	1.89	0.76	1.13	5	0.226	30	
	7	BT-12 to ICWW	0.76	0	0.76	4	0.19	34	

APPENDIX D3 - CALIBRATION LOADING

Calibration Model Non-Point Load Equivalent Calculations:

Modeled stream or water body:

BAYOU TERREBONNE (SUBSEGMENT 120301)

Shaded cells are input values for calculations.

REACH NUMBER & DESCRIPTION	Calibration Model Reach Length (km)	Calibration Model Average Reach Width (meters)	Calibration Model UCBOD1 Nonpoint loading (kg/day)	Calibration Model UCBOD2 Nonpoint loading (kg/day)	Calibration Model Total UCBOD Nonpoint loading (kg/day)	Calibration Model UNBOD Nonpoint loading (kg/day)	Calibration Model UCBOD1 Nonpoint loading (gm O ₂ /m ² /day)	Calibration Model UCBOD2 Nonpoint loading (gm O ₂ /m ² /day)	Calibration Model Total UCBOD Nonpoint loading (gm O ₂ /m ² /day)	Calibration Model Total UNBOD Nonpoint loading (gm O ₂ /m ² /day)	Calibration Model SOD (gm O ₂ /m ² /day)	Calibration Model TOTAL Benthic Load (gm O ₂ /m ² /day)
	A	B	C1	C2	C3	D3	E1 = C1 / (A x B)	E2 = C2 / (A x B)	E3 = C3 / (A x B)	F3 = D3 / (A x B)	G	H = E3 + F3 + G
UPPER BAYOU TERREBONNE REACH 1: BT01 & BT02	3.40	16.46	18.50	8.00	27	2.2	0.331	0.143	0.474	0.039	3.00	3.51
UPPER BAYOU TERREBONNE REACH 2: BT02 & BT03	4.24	17.68	41.00	13.00	54	9.3	0.547	0.173	0.720	0.124	2.80	3.64
UPPER BAYOU TERREBONNE REACH 3: BT03 TO GLASS SHOP WEIR	2.35	17.68	22.00	3.50	26	0.0	0.530	0.084	0.614	0.000	2.50	3.11
UPPER BAYOU TERREBONNE REACH 4: GLASS SHOP WEIR TO COTEAU WEIR	2.63	16.46	54.00	17.00	71	10.0	1.247	0.393	1.640	0.231	1.40	3.27
UPPER BAYOU TERREBONNE REACH 5: COTEAU WEIR TO SONIC WEIR (WEIR # 3)	2.48	17.68	24.00	9.80	34	1.5	0.547	0.224	0.771	0.034	2.95	3.76
LOWER BAYOU TERREBONNE REACH 1: WEIR # 3 TO BAYOU CANE	0.21	14.32	2.00	1.50	4	1.3	0.665	0.499	1.164	0.432	2.00	3.60
LOWER BAYOU TERREBONNE REACH 2: BAYOU CANE TO BT08	0.23	14.32	0.50	2.00	3	1.9	0.152	0.607	0.759	0.577	2.00	3.34
LOWER BAYOU TERREBONNE REACH 3: BT08 TO BT09	0.93	14.32	25.00	12.00	37	1.6	1.877	0.901	2.778	0.120	2.20	5.10
LOWER BAYOU TERREBONNE REACH 4: BT09 TO BT 10	1.99	14.63	17.00	5.00	22	10.0	0.584	0.172	0.756	0.343	2.20	3.30
LOWER BAYOU TERREBONNE REACH 5: BT10 TO BT11	1.68	18.90	100.00	18.00	118	14.0	3.149	0.567	3.716	0.441	0.80	4.96
LOWER BAYOU TERREBONNE REACH 6: BT11 TO BT12	1.13	22.86	87.00	16.00	103	42.0	3.368	0.619	3.987	1.626	0.10	5.71
LOWER BAYOU TERREBONNE REACH 7: BT12 TO ICWW	0.76	22.86	60.00	0.00	60	2.0	3.454	0.000	3.454	0.115	0.00	3.57

APPENDIX D4 – FLOW CALCULATIONS

TIDAL FLOW CALCULATIONS (used for calibration and projection models)
Bayou Terrebonne - GIWW to Weir # 3 (Sonic Weir)

Assume that weirs upstream would experience no flow at 7Q10 conditions

Time-of-travel (TOT, dump to centriod of dye run 4) = 26.3959 hours = 985029.19 sec

Distance traveled (dump to dye run 4) = 1132.62 meters

Velocity = 1132.62 meters / 985029.19 sec = 0.01192 m/s

Site ID	DATE	Width (ft)	Width (m)	Depth (ft)	Depth (m)	Cross Sectional Area (ft ²)	Velocity from Dye Study Downstream of Weir # 3 (m/sec)	Stream Discharge (cms)
BT-07	8/5/2003	47.0	14.32	2.49	0.76	10.87138	0.01192	0.12958
BT-08	8/5/2003	47.0	14.32	2.85	0.87	12.44315	0.01192	0.14831
BT-09	8/5/2003	47.0	14.32	2.32	0.71	10.12916	0.01192	0.12073
BT-10	8/5/2003	48.0	14.63	2.9	0.88	12.93084	0.01192	0.15412
BT-11	8/5/2003	62.0	18.90	5.45	1.66	31.38887	0.01192	0.37413
BT-12	8/5/2003	75.0	22.86	4.48	1.37	31.21238	0.01192	0.37203

The flows calculated above were used for calibration. Incremental flow values were calculated from these values. The incremental flows are presented in the following tables.

INCREMENTAL FLOW CALCULATIONS FOR UPPER TERREBONNE (HEADWATERS TO WEIR #3)									
LAQUAL REACH	REACH DESCRIPTION	UP-STREAM RKM	DOWN-STREAM RKM	SITE LOCATION DESCRIPTION	RIVER KILO-METER (RKM)	STREAM FLOW (cms)	CHANGE IN STREAM FLOW (cms)	INCREMENTAL FLOW* (cms/RKM)	ACCUMULATIVE FLOW (cms)
				Headwater		0.00010			0.00010
1.00	BT01 to BT02	22.03	18.63				0.01896	0.00558	0.01906
2.00	BT02 to BT03	18.63	14.39				0.02364	0.00558	0.04270
3.00	BT03 to weir #1	14.39	12.04				0.01310	0.00558	0.05580
				glass shop weir (Weir #1)	12.04	0.05580			0.05580
4.00	Weir #1 to weir # 2	12.04	9.41				-0.02098	-0.00798	0.03482
				Coteau Rd. weir (Weir #2)	9.41	0.03482			
5.00	Weir #2 to Weir #3	9.41	6.93	Sonic weir (Weir #3)	6.93	0.02152	-0.01331	-0.00537	0.02152
				Sonic weir (Weir #3)	6.93	0.02152			

* Incremental flow prorated based on distance

INCREMENTAL FLOW CALCULATIONS FOR LOWER TERREBONNE (WEIR #3 TO ICWW)
Shaded flow values based on dye study and TOT for Run 4

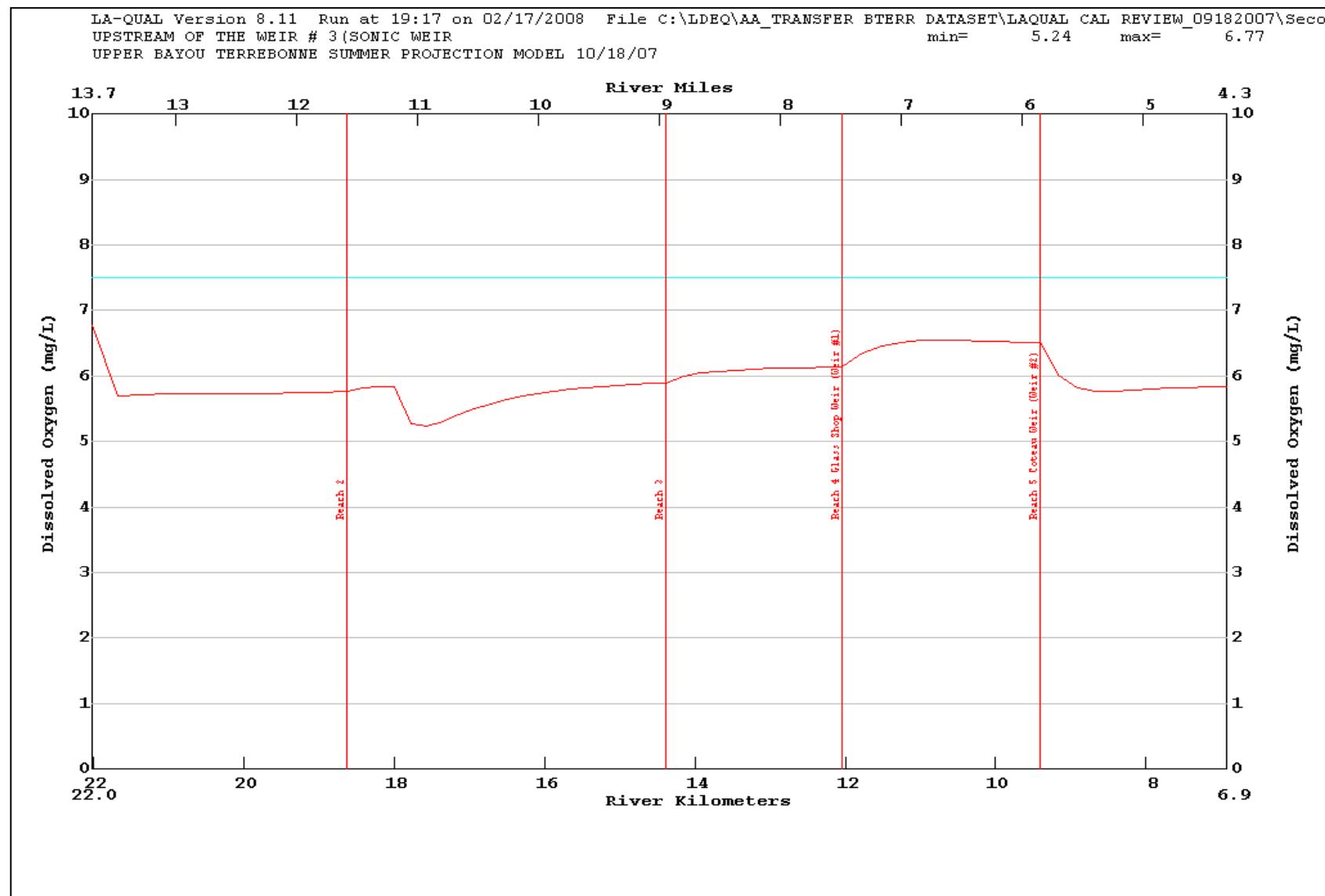
LAQUAL REACH	REACH DESCRIPTION	UP-STREAM RKM	DOWN-STREAM RKM	SITE LOCATION DESCRIPTION	RIVER KILO-METER (RKM)	STREAM FLOW (cms)	CHANGE IN STREAM FLOW (cms)	INCREMENTAL FLOW* (cms/RKM)	ACCUMULATIVE FLOW (cms)
				Sonic weir (Weir #3)	6.93	0.02152			0.12890
				BT07	6.91	0.12958			0.02152
1	Weir # 3 to Bayou Cane	6.93	6.72				0.00926	0.04411	0.13817
2	Bayou Cane to BT08	6.72	6.49				0.01014	0.04411	0.14831
				BT08	6.49	0.14831			
3	BT08 to BT09	6.49	5.56				-0.02758	-0.02966	0.12073
				BT09	5.56	0.12073			
4	BT09 to BT10	5.56	3.57				0.03339	0.01678	0.15412
				BT10	3.58	0.15412			
5	BT10 to BT11	3.57	1.89				0.22000	0.13095	0.37413
				BT11	1.89	0.37413			
6	BT11 to BT12	1.89	0.76				-0.00210	-0.00186	0.37203
				BT12	0.76	0.37203			
7	BT12 to ICWW	0.76	0.00				-0.00141	-0.00186	0.37061

* Incremental flow prorated based on distance.

**APPENDIX E – PROJECTION MODEL INPUT AND OUTPUT DATA SETS
(Upper Terrebonne Model)**

- APPENDIX E1 – SUMMER PROJECTION MODEL GRAPHS, INPUT FILE, AND
OUTPUT FILE 201
- APPENDIX E2 – SUMMER PROJECTION
WATER QUALITY INPUT JUSTIFICATIONS 225
- APPENDIX E3 – WINTER PROJECTION MODEL GRAPHS, INPUT FILE, AND
OUTPUT FILE 245
- APPENDIX E4 – WINTER PROJECTION WATER QUALITY INPUT
JUSTIFICATIONS 270

**APPENDIX E1 – SUMMER PROJECTION MODEL GRAPHS, INPUT FILE, AND
OUTPUT FILE
(Upper Terrebonne Model)**



UPPER TERREBONNE INPUT FILE – SUMMER PROJECTION

```

TITLE01      UPPER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/18/07
TITLE02      UPSTREAM OF THE WEIR # 3(SONIC WEIR
! Modeled CBOD1, CBOD2, NBOD, and DO; constant widths and depths;
!
! WQ Summer Projection for CBOD1, CBOD2, AND NBOD
! 80 % NP reduction; Schriever School 30/15; MOS=10%
CONTROL YES METRIC UNITS
ENDATA01
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES           IN MG/L
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY        IN MG/L
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1
MODOPT07 YES BOD2
MODOPT08 YES NBOD OXYGEN DEMAND                         IN MG/L
MODOPT09 NO PHOSPHORUS
MODOPT10 NO CHLOROPHYLL A
MODOPT11 NO MACROPHYTES
MODOPT12 NO COLIFORM
MODOPT13 NO NONCONSERVATIVE MATERIAL = NBOD               IN MG/L
ENDATA02
! PROGRAM LOGICAL UNIT NUMBER FOR SEQUENCING =      0.0
PROGRAM KL MINIMUM          =      0.7
PROGRAM MAXIMUM ITERATION LIMIT = 200.
PROGRAM HYDRAULIC CALCULATION METHOD = 2.
! No Tide Height for model due to three weirs
PROGRAM TIDE HEIGHT          =      0.0
PROGRAM TIDAL PERIOD         =     25.0
PROGRAM EFFECTIVE BOD DUE TO ALGAE = 0.01
PROGRAM ALGAE OXYGEN PRODUCTION RATE = 0.0
PROGRAM INHIBITION CONTROL VALUE = 3
PROGRAM OCEAN EXCHANGE RATIO   = 0.0
PROGRAM SETTLING RATE UNITS   = 2
ENDATA03
ENDATA04
ENDATA05
ENDATA06
ENDATA07
! REACH INFO ENTERED 9/16/04;
!0000000111111112222222333333334444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
REACH ID    1 BT BT01 & BT-02                      22.03   18.63   0.3400
REACH ID    2 BT BT02 & BT-03                      18.63   14.39   0.2120
REACH ID    3 BT BT03 TO GLASS SHOP WEIR            14.39   12.04   0.2350
REACH ID    4 BT GLASS SHOP WEIR TO COTEAU WEIR       12.04   9.41    0.2630
REACH ID    5 BT COTEAU WEIR TO SONIC WEIR           9.41    6.93    0.2480
!
! Datatype 9 revised 9/24/2007; width and depth constants determined by the
! downstream site in each reach
ENDATA08
HYDR-1      1      0      0  16.46      0      0  0.40      0  0.03
HYDR-1      2      0      0  17.68      0      0  0.37      0  0.03
HYDR-1      3      0      0  17.68      0      0  0.36      0  0.03
HYDR-1      4      0      0  16.46      0      0  0.49      0  0.03

```

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

HYDR-1 5 0 0 17.68 0 0 0.95 0 0.03
ENDATA09

!REACH INFO ENTERED 10/31/04; This area not considered to be tidal due to weirs;
!Used default dispersion option = 1 -->dispersion = "a", i.e. dispersion = 0
!000000001111111122222223333333344444444455555555666666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890

!
HYDR-2 1 0.0 0.00 0.830 0 1.00
HYDR-2 2 0.0 0.00 0.830 0 1.00
HYDR-2 3 0.0 0.00 0.830 0 1.00
HYDR-2 4 0.0 0.00 0.830 0 1.00
HYDR-2 5 0.0 0.00 0.830 0 1.00
ENDATA10

! Modified for summer projection 10/18/07; chla removed except for reach 1
! which was exceedingly high in calibration

!000000001111111122222233333333444444444455555555666666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890

!
INITIAL 1 30.31 0.20 5.00 0.00 0.000 0.00 10.00 0.0
INITIAL 2 30.31 0.22 5.00 0.00 0.000 0.00 0.00 0.0
INITIAL 3 30.31 0.22 5.00 0.00 0.000 0.00 0.00 0.0
INITIAL 4 30.31 0.20 5.00 0.00 0.000 0.00 0.00 0.0
INITIAL 5 30.31 0.19 5.00 0.00 0.000 0.00 0.00 0.0
ENDATA11

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

! Data Entered 9/19/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream end of each reach
!000000001111111122222223333333444444445555555566666666677777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
! REAERATION SOD BOD1DEC SETT CON2SOD ANEARO BOD2DEC SETT CON2SOD ANEARO
COEF-1 1 15 0.0 0.0 0.0 0.67 0.23 0.05 0.0 0.0 0.03 0.05 0.0 0.0
COEF-1 2 15 0.0 0.0 0.0 0.62 0.31 0.05 0.0 0.0 0.03 0.05 0.0 0.0
COEF-1 3 15 0.0 0.0 0.0 0.56 0.27 0.05 0.0 0.0 0.03 0.05 0.0 0.0
COEF-1 4 15 0.0 0.0 0.0 0.31 0.30 0.05 0.0 0.0 0.04 0.05 0.0 0.0
COEF-1 5 15 0.0 0.0 0.0 0.66 0.25 0.05 0.0 0.0 0.03 0.05 0.0 0.0
ENDATA12
!
! Data Entered 9/19/04
! Decay rates revised on 9/25/07 to coincide with values at site located at Downstream end of each reach
!00000000111111112222222333333344444444555555556666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
! NBODDEC NBODSETT
COEF-2 1 0.11 0.025 0.0 0.0 0.0 0.0
COEF-2 2 0.17 0.025 0.0 0.0 0.0 0.0
COEF-2 3 0.06 0.025 0.0 0.0 0.0 0.0
COEF-2 4 0.10 0.025 0.0 0.0 0.0 0.0
COEF-2 5 0.10 0.025 0.0 0.0 0.0 0.0
ENDATA13
ENDATA14
ENDATA15
!
! TEMP modified for summer projection on 10/18/07
!
! Assumed same incremental flow for summer projections
!00000000111111112222222333333344444444555555556666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
! R# OUTFLOW INFLOW TEMP SAL CONSERVI CONSERV2
INCR-1 1 0.01896 30.31 0.22 17.1 429.8
INCR-1 2 0.02364 30.31 0.22 16.4 430.8
INCR-1 3 0.01310 30.31 0.19 12.8 381.2
INCR-1 4 -0.02098
INCR-1 5 -0.01331
ENDATA16
!
! DO modified for summer projection on 10/18/07
!00000000111111112222222333333344444444555555556666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
! R# DO BOD1 NBOD NH3 NO2 BOD2

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

INCR-2	1	2.00	0.91	0.60		0.99
INCR-2	2	2.00	0.80	0.68		1.06
INCR-2	3	2.00	0.78	0.28		0.86
INCR-2	4					
INCR-2	5					
ENDATA17						
ENDATA18						
! Data modified 7/8/05; recalibrated 10/8/2007						
!0000000011111111222222223333333344444444555555556666666667777777778						
!234567890123456789012345678901234567890123456789012345678901234567890						
!						
			BOD1	NBOD	DO	BOD2
NONPOINT	1	4.11	0.49		1.78	
NONPOINT	2	9.11	2.07		2.89	
NONPOINT	3	4.89	0.0		0.78	
NONPOINT	4	12.00	2.22		3.78	
NONPOINT	5	5.33	0.33		2.18	
ENDATA19						
!ALL HEADWATER DATA HAS BEEN INPUT						
! modified flow and temp for summer projection on 10/18/07						
!000000001111111122222222333333334444444455555555666666666777777778						
!234567890123456789012345678901234567890123456789012345678901234567890						
!						
			FLOW	TEMP	SAL	CL COND
HDWTR-1	1	BT01	0	0.00283	30.31	0.2 16.2 452.39
ENDATA20						
! modified DO for summer projection on 10/18/07						
!000000001111111122222222333333334444444455555555666666666777777778						
!234567890123456789012345678901234567890123456789012345678901234567890						
!						
			DO	BOD1	NBOD	BOD2
HDWTR-2	1	6.77	2.70	1.14	0.0	0.0 2.76
ENDATA21						
! Chlor a data modified for summer projection on 10/18/07; CHLOR A set to 10						
! because value used in calibration was exceedingly high						
!000000001111111122222222333333334444444455555555666666666777777778						
!234567890123456789012345678901234567890123456789012345678901234567890						
!						
			CHL A			
HDWTR-3	1	0.0	10.0	0.0	0.0	
ENDATA22						
ENDATA23						
!000000001111111122222222333333334444444455555555666666666777777778						
!234567890123456789012345678901234567890123456789012345678901234567890						

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

```
!
      Name      Flow      TEMP
WSTLD-1    14     Schriever School 0.0013675    30.0      0.0      0.00      0.0
ENDATA24
!00000000111111111222222223333333344444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      DO      BOD1      NBOD      BOD2
WSTLD-2    14     2.0     69.00    0.0     64.50      0.00    0.0     0.00      0.0
ENDATA25
!0000000011111111122222222333333334444444445555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      Chlor a
WSTLD-3    14     0.000     0.000     0.000    53.1300
ENDATA26
! LBC data entered 9/19/04; revised 10/16/07
! modified Temp, Do, and chlor a for summer projection on 10/18/07
LOWER BC TEMPERATURE          = 30.31
LOWER BC SALINITY             = 0.18
LOWER BC CONSERVATIVE MATERIAL I = 11.7
LOWER BC CONSERVATIVE MATERIAL II = 359.60
LOWER BC DISSOLVED OXYGEN      = 5.00
LOWER BC BOD1                  = 2.85
LOWER BC BOD2                  = 3.44
LOWER BC PHOSPHORUS           = 0.00
LOWER BC CHLOROPHYLL A         = 0.00
LOWER BC COLIFORM              = 0.00
LOWER BC NBOD                  = 1.71
ENDATA27
! Data modified 7/8/05
!0000000011111111122222222333333334444444445555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
DAM DATA    41     WEIR #1 Glass    1     0.65      0.0      0.2
DAM DATA    51     WEIR #2 Coteau   1     0.65      0.1      0.32
ENDATA28
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 5
PLOT RCH 1 2 3 4 5
ENDATA30
OVERLAY 1 UpBTProjOvrlay.txt
ENDATA31
```

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

UPPER TERREBONNE OUTPUT FILE - SUMMER PROJECTION

LA-QUAL Version 8.11

Louisiana Department of Environmental Quality

Input file is C:\LDEQ\AA_TRANSFER BTERR DATASET\LAQUAL CAL REVIEW_09182007\Second Revision 2008 Projections\North of Weir 3\UpBTerrSum5Rrev2_80per30_10MOS.txt
Output produced at 12:35 on 02/23/2008

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE CONTROL TITLES

TITLE01 UPPER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/18/07
TITLE02 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)
CONTROL YES METRIC UNITS
ENDATA01

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE MODEL OPTION

MODOPT01	NO	TEMPERATURE	
MODOPT02	NO	SALINITY	
MODOPT03	YES	CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MODOPT04	YES	CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN MG/L
MODOPT05	YES	DISSOLVED OXYGEN	
MODOPT06	YES	BOD1	
MODOPT07	YES	BOD2	
MODOPT08	YES	NBOD OXYGEN DEMAND	IN MG/L
MODOPT09	NO	PHOSPHORUS	
MODOPT10	NO	CHLOROPHYLL A	
MODOPT11	NO	MACROPHYTES	
MODOPT12	NO	COLIFORM	
MODOPT13	NO	NONCONSERVATIVE MATERIAL = NBOD	IN MG/L
ENDATA02			

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

PROGRAM	KL MINIMUM	=	0.70000 meters/day
PROGRAM	MAXIMUM ITERATION LIMIT	=	200.00000
PROGRAM	HYDRAULIC CALCULATION METHOD	=	2.00000 (widths and depths)
PROGRAM	TIDE HEIGHT	=	0.00000 meters
PROGRAM	TIDAL PERIOD	=	25.00000 hours
PROGRAM	EFFECTIVE BOD DUE TO ALGAE	=	0.01000 mg/L BOD per ug/L chl a
PROGRAM	ALGAE OXYGEN PRODUCTION RATE	=	0.00000 mg O/ug chl a/day
PROGRAM	INHIBITION CONTROL VALUE	=	3.00000 (inhibit all rates but SOD)
PROGRAM	OCEAN EXCHANGE RATIO	=	0.00000
PROGRAM	SETTLING RATE UNITS	=	2.00000 (values entered as per day)
ENDATA03			

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE RATE CODE THETA VALUE

ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA06

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH	END REACH	ELEM LENGTH	REACH LENGTH	ELEMS PER RCH	BEGIN ELEM	END ELEM
				km	km	km	km		NUM	NUM

REACH ID	1	BT	BT01 & BT-02	22.03	TO	18.63	0.3400	3.40	10	1	10
REACH ID	2	BT	BT02 & BT-03	18.63	TO	14.39	0.2120	4.24	20	11	30
REACH ID	3	BT	BT03 TO GLASS SHOP WEIR	14.39	TO	12.04	0.2350	2.35	10	31	40
REACH ID	4	BT	GLASS SHOP WEIR TO COTEAU WEIR	12.04	TO	9.41	0.2630	2.63	10	41	50
REACH ID	5	BT	COTEAU WEIR TO SONIC WEIR	9.41	TO	6.93	0.2480	2.48	10	51	60

ENDATA08

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
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Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

HYDR-1	1	BT	0.000	0.000	16.460	0.000	0.000	0.400	0.00000	0.030
HYDR-1	2	BT	0.000	0.000	17.680	0.000	0.000	0.370	0.00000	0.030
HYDR-1	3	BT	0.000	0.000	17.680	0.000	0.000	0.360	0.00000	0.030
HYDR-1	4	BT	0.000	0.000	16.460	0.000	0.000	0.490	0.00000	0.030
HYDR-1	5	BT	0.000	0.000	17.680	0.000	0.000	0.950	0.00000	0.030
ENDATA09										

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"		
HYDR		1	BT	0.00	0.000	0.830	0.000	1.000		
HYDR		2	BT	0.00	0.000	0.830	0.000	1.000		
HYDR		3	BT	0.00	0.000	0.830	0.000	1.000		
HYDR		4	BT	0.00	0.000	0.830	0.000	1.000		
HYDR		5	BT	0.00	0.000	0.830	0.000	1.000		
ENDATA10										

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD	TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL		1	BT	30.31	0.20	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL		2	BT	30.31	0.22	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		3	BT	30.31	0.22	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		4	BT	30.31	0.20	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		5	BT	30.31	0.19	5.00	0.00	0.00	0.00	0.00	0.00
ENDATA11											

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m ² /d	BOD DECAY per day	BOD SETT m/d	ANAER BOD2 DECAY per day	BOD CONV TO SOD	BOD2 DECAY per day	BOD2 SETT m/d	ANAER BOD2 DECAY per day	
COEF-1	1	BT	15 LOUISIANA	0.000	0.000	0.000	0.670	0.230	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	2	BT	15 LOUISIANA	0.000	0.000	0.000	0.620	0.310	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	3	BT	15 LOUISIANA	0.000	0.000	0.000	0.560	0.270	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	4	BT	15 LOUISIANA	0.000	0.000	0.000	0.310	0.300	0.050	0.000	0.000	0.040	0.050	0.000	0.000
COEF-1	5	BT	15 LOUISIANA	0.000	0.000	0.000	0.660	0.250	0.050	0.000	0.000	0.030	0.050	0.000	0.000

ENDATA12

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD DECA	NBOD SETT	ORGN TO NH3	CONV SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1	BT	0.110	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	2	BT	0.170	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	3	BT	0.060	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	4	BT	0.100	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	5	BT	0.100	0.025	0.000		0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG TO SOD	CONV	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING
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ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM TO SOD	CONV
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ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	BT	0.00000	0.01896	30.31	0.22	17.10	429.80	0.00558	0.00000
INCR-1	2	BT	0.00000	0.02364	30.31	0.22	16.40	430.80	0.00558	0.00000
INCR-1	3	BT	0.00000	0.01310	30.31	0.19	12.80	381.20	0.00557	0.00000
INCR-1	4	BT	-0.02098	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00798
INCR-1	5	BT	-0.01331	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00537

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD	NBOD	BOD#2		
INCR-2	1	BT	2.00	0.91	0.60	0.00	0.00	0.99
INCR-2	2	BT	2.00	0.80	0.68	0.00	0.00	1.06

INCR-2	3	BT	2.00	0.78	0.28	0.00	0.00	0.86
INCR-2	4	BT	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	5	BT	0.00	0.00	0.00	0.00	0.00	0.00
ENDATA17								

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM
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ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
-----------	-------	----	-------	------	------	-----	----	-------

NONPOINT	1	BT	4.11	0.49	0.00	0.00	0.00	1.78
NONPOINT	2	BT	9.11	2.07	0.00	0.00	0.00	2.89
NONPOINT	3	BT	4.89	0.00	0.00	0.00	0.00	0.78
NONPOINT	4	BT	12.00	2.22	0.00	0.00	0.00	3.78
NONPOINT	5	BT	5.33	0.33	0.00	0.00	0.00	2.18
ENDATA19								

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m³/s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
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HDWTR-1	1	BT01	0	0.00283	0.100	30.31	0.20	16.200	452.390
ENDATA20									

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD#2 mg/L
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HDWTR-2	1	BT01	6.77	2.70	1.14	0.00	0.00	2.76
ENDATA21								

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
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HDWTR-3	1	BT01	0.00	10.00	0.00	0.00
ENDATA22						

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER ELEMENT	NAME KILOM
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ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW	FLOW	FLOW	TEMP	SALIN	CM-I	CM-II
-----------	---------	-------	------	------	------	------	------	-------	------	-------

				m^3/s	cfs	MGD	deg C	ppt	MG/L	MG/L
WSTLD-1	14	17.99	Schriever School	0.00137	0.04829	0.031	30.00	0.00	0.000	0.000
ENDATA24										

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	% NITRIF	mg/L	BOD#2 mg/L
WSTLD-2	14	Schriever School	2.00	69.00	0.00	64.50	0.00	0.00	0.00
ENDATA25									

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
WSTLD-3	14	Schriever School	0.00	0.00	0.00	53.13
ENDATA26						

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 30.310 deg C
LOWER BC	SALINITY	= 0.180 ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 11.700 MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 359.600 MG/L
LOWER BC	DISSOLVED OXYGEN	= 5.000 mg/L
LOWER BC	BOD1	= 2.850 mg/L
LOWER BC	BOD2	= 3.440 mg/L
LOWER BC	PHOSPHORUS	= 0.000 mg/L
LOWER BC	CHLOROPHYLL A	= 0.000 μ g/L
LOWER BC	COLIFORM	= 0.000 #/100 mL
LOWER BC	NBOD	= 1.710 mg/L
ENDATA27		

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
DAM DATA	41	WEIR #1 Glass	1	0.650	0.000	0.200
DAM DATA	51	WEIR #2 Coteau	1	0.650	0.100	0.320
ENDATA28						

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
ENDATA29									

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1

NUMBER OF REACHES IN PLOT 1 = 5
 PLOT RCH 1 2 3 4 5
 ENDDATA30

\$\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

OVERLAY 1 UpBTProjOvrlay.txt
 ENDDATA31

.....NO ERRORS DETECTED IN INPUT DATA
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 3 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED
GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

CONDENSED CAPSULE SUMMARY FOR BT01

DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	EBOD1 mg/L	EBOD2 mg/L	ORGN mg/L	NH3 µg/L	CHLA 1/d	REAER 1/da	BOD1 1/da	BOD1 1/da	BOD2 1/da	BOD2 1/da	NH3 g/m²/d
HDWTR	0.00283	30.31	0.20	6.77	2.70	2.76	1.14	0.00	10.00						
21.69	0.00473	30.31	0.20	5.69	0.96	1.54	0.45	0.00	9.00	2.12	0.37	0.06	0.05	0.06	0.00
21.35	0.00662	30.31	0.20	5.71	0.67	1.18	0.30	0.00	8.00	2.12	0.37	0.06	0.05	0.06	0.00
21.01	0.00852	30.31	0.21	5.72	0.60	1.03	0.25	0.00	7.00	2.12	0.37	0.06	0.05	0.06	0.00
20.67	0.01041	30.31	0.21	5.73	0.57	0.95	0.23	0.00	6.00	2.12	0.37	0.06	0.05	0.06	0.00
20.33	0.01231	30.31	0.21	5.73	0.55	0.91	0.22	0.00	5.00	2.12	0.37	0.06	0.05	0.06	0.00
19.99	0.01421	30.31	0.21	5.74	0.54	0.89	0.22	0.00	4.00	2.12	0.37	0.06	0.05	0.06	0.00
19.65	0.01610	30.31	0.21	5.74	0.53	0.87	0.22	0.00	3.00	2.12	0.37	0.06	0.05	0.06	0.00
19.31	0.01800	30.31	0.22	5.74	0.51	0.86	0.21	0.00	2.00	2.13	0.37	0.06	0.05	0.06	0.00
18.97	0.01989	30.31	0.22	5.75	0.50	0.85	0.21	0.00	1.00	2.14	0.37	0.06	0.05	0.06	0.00
18.63	0.02179	30.31	0.22	5.76	0.49	0.84	0.21	0.00	0.00	2.15	0.37	0.06	0.05	0.06	0.00
18.42	0.02297	30.31	0.22	5.82	0.53	0.86	0.23	0.00	0.00	2.33	0.50	0.06	0.05	0.06	0.00
18.21	0.02415	30.31	0.22	5.84	0.56	0.87	0.25	0.00	0.00	2.34	0.50	0.06	0.05	0.06	0.00
17.99	0.02534	30.31	0.22	5.85	0.57	0.89	0.26	0.00	0.00	2.35	0.50	0.06	0.05	0.06	0.00
17.78	0.02789	30.31	0.22	5.27	3.12	0.86	2.89	0.00	0.00	2.37	0.50	0.06	0.05	0.06	0.00
17.57	0.02907	30.31	0.22	5.24	2.45	0.87	2.39	0.00	0.00	2.38	0.50	0.06	0.05	0.06	0.00
17.36	0.03025	30.31	0.22	5.31	1.97	0.88	1.99	0.00	0.00	2.39	0.50	0.06	0.05	0.06	0.00
17.15	0.03143	30.31	0.22	5.41	1.63	0.89	1.68	0.00	0.00	2.39	0.50	0.06	0.05	0.06	0.00
16.93	0.03261	30.31	0.22	5.50	1.38	0.90	1.44	0.00	0.00	2.40	0.50	0.06	0.05	0.06	0.00
16.72	0.03380	30.31	0.22	5.58	1.19	0.90	1.24	0.00	0.00	2.41	0.50	0.06	0.05	0.06	0.00
16.51	0.03498	30.31	0.22	5.64	1.06	0.91	1.08	0.00	0.00	2.42	0.50	0.06	0.05	0.06	0.00
16.30	0.03616	30.31	0.22	5.69	0.96	0.91	0.95	0.00	0.00	2.43	0.50	0.06	0.05	0.06	0.00
16.09	0.03734	30.31	0.22	5.73	0.88	0.92	0.85	0.00	0.00	2.44	0.50	0.06	0.05	0.06	0.00
15.87	0.03852	30.31	0.22	5.77	0.82	0.92	0.76	0.00	0.00	2.45	0.50	0.06	0.05	0.06	0.00
15.66	0.03971	30.31	0.22	5.79	0.78	0.93	0.69	0.00	0.00	2.45	0.50	0.06	0.05	0.06	0.00
15.45	0.04089	30.31	0.22	5.82	0.74	0.93	0.63	0.00	0.00	2.46	0.50	0.06	0.05	0.06	0.00
15.24	0.04207	30.31	0.22	5.84	0.72	0.94	0.59	0.00	0.00	2.47	0.50	0.06	0.05	0.06	0.00
15.03	0.04325	30.31	0.22	5.85	0.70	0.94	0.54	0.00	0.00	2.48	0.50	0.06	0.05	0.06	0.00
14.81	0.04443	30.31	0.22	5.87	0.68	0.94	0.51	0.00	0.00	2.49	0.50	0.06	0.05	0.06	0.00
14.60	0.04562	30.31	0.22	5.88	0.67	0.94	0.48	0.00	0.00	2.50	0.50	0.06	0.05	0.06	0.00

14.39	0.04680	30.31	0.22	5.89	0.66	0.95	0.46	0.00	0.00	2.50	0.50	0.06	0.05	0.06	0.00	1.19
14.16	0.04811	30.31	0.22	5.99	0.66	0.93	0.43	0.00	0.00	2.59	0.43	0.06	0.05	0.06	0.00	1.07
13.92	0.04942	30.31	0.22	6.05	0.66	0.91	0.41	0.00	0.00	2.60	0.43	0.06	0.05	0.06	0.00	1.07
13.69	0.05073	30.31	0.21	6.08	0.66	0.89	0.38	0.00	0.00	2.61	0.43	0.06	0.05	0.06	0.00	1.07
13.45	0.05204	30.31	0.21	6.09	0.67	0.87	0.36	0.00	0.00	2.62	0.43	0.06	0.05	0.06	0.00	1.07
13.22	0.05335	30.31	0.21	6.11	0.67	0.86	0.34	0.00	0.00	2.63	0.43	0.06	0.05	0.06	0.00	1.07
12.98	0.05466	30.31	0.21	6.12	0.67	0.85	0.33	0.00	0.00	2.64	0.43	0.06	0.05	0.06	0.00	1.07
12.75	0.05597	30.31	0.21	6.12	0.67	0.83	0.31	0.00	0.00	2.65	0.43	0.06	0.05	0.06	0.00	1.07
12.51	0.05728	30.31	0.20	6.13	0.67	0.82	0.30	0.00	0.00	2.66	0.43	0.06	0.05	0.06	0.00	1.07
12.28	0.05859	30.31	0.20	6.14	0.67	0.81	0.29	0.00	0.00	2.67	0.43	0.06	0.05	0.06	0.00	1.07
12.04	0.05990	30.31	0.20	6.14	0.67	0.80	0.27	0.00	0.00	2.68	0.43	0.06	0.05	0.06	0.00	1.07
11.78	0.05780	30.31	0.20	6.35	0.74	0.83	0.29	0.00	0.00	1.89	0.48	0.06	0.06	0.06	0.00	0.59
11.51	0.05570	30.31	0.20	6.46	0.79	0.86	0.31	0.00	0.00	1.88	0.48	0.06	0.06	0.06	0.00	0.59
11.25	0.05360	30.31	0.20	6.52	0.84	0.89	0.32	0.00	0.00	1.87	0.48	0.06	0.06	0.06	0.00	0.59
10.99	0.05151	30.31	0.20	6.54	0.88	0.92	0.33	0.00	0.00	1.86	0.48	0.06	0.06	0.06	0.00	0.59
10.72	0.04941	30.31	0.20	6.55	0.91	0.94	0.35	0.00	0.00	1.85	0.48	0.06	0.06	0.06	0.00	0.59
10.46	0.04731	30.31	0.19	6.54	0.94	0.97	0.36	0.00	0.00	1.85	0.48	0.06	0.06	0.06	0.00	0.59
10.20	0.04521	30.31	0.19	6.53	0.96	1.00	0.37	0.00	0.00	1.84	0.48	0.06	0.06	0.06	0.00	0.59
9.94	0.04311	30.31	0.19	6.52	0.98	1.02	0.38	0.00	0.00	1.83	0.48	0.06	0.06	0.06	0.00	0.59
9.67	0.04102	30.31	0.19	6.51	0.99	1.05	0.39	0.00	0.00	1.82	0.48	0.06	0.06	0.06	0.00	0.59
9.41	0.03892	30.31	0.19	6.50	1.00	1.07	0.40	0.00	0.00	1.81	0.48	0.06	0.06	0.06	0.00	0.59
9.16	0.03759	30.31	0.19	6.02	0.74	1.00	0.32	0.00	0.00	0.89	0.40	0.06	0.05	0.06	0.00	1.26
8.91	0.03626	30.31	0.19	5.83	0.56	0.93	0.26	0.00	0.00	0.89	0.40	0.06	0.05	0.06	0.00	1.26
8.67	0.03492	30.31	0.19	5.77	0.45	0.87	0.21	0.00	0.00	0.89	0.40	0.06	0.05	0.06	0.00	1.26
8.42	0.03359	30.31	0.19	5.77	0.38	0.82	0.17	0.00	0.00	0.89	0.40	0.06	0.05	0.06	0.00	1.26
8.17	0.03226	30.31	0.19	5.78	0.34	0.77	0.14	0.00	0.00	0.89	0.40	0.06	0.05	0.06	0.00	1.26
7.92	0.03093	30.31	0.18	5.80	0.31	0.73	0.11	0.00	0.00	0.89	0.40	0.06	0.05	0.06	0.00	1.26
7.67	0.02960	30.31	0.18	5.82	0.30	0.69	0.09	0.00	0.00	0.89	0.40	0.06	0.05	0.06	0.00	1.26
7.43	0.02827	30.31	0.18	5.83	0.29	0.65	0.08	0.00	0.00	0.89	0.40	0.06	0.05	0.06	0.00	1.26
7.18	0.02694	30.31	0.18	5.84	0.28	0.62	0.07	0.00	0.00	0.89	0.40	0.06	0.05	0.06	0.00	1.26
6.93	0.02561	30.31	0.18	5.84	0.28	0.60	0.06	0.00	0.00	0.89	0.40	0.06	0.05	0.06	0.00	1.26

FINAL REPORT BT01
 REACH NO. 1 BT01 & BT-02

UPPER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/18/07
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	PHOS	CHL A	COLI	NCM
			deg C	ppt	MG/L	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	#/100mL	MG/L
1 EACH	HDWTR INCR	0.00283	30.31	0.20	16.20	452.39	6.77	2.60	2.76	2.70	2.76	1.14	0.00	0.00	0.00	10.00	0.00	0.00
		0.00190	30.31	0.22	17.10	429.80	2.00	0.91	0.99			0.60	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
	km	km	m³/s		m/s	days	m	m	m³	m²	m²	m³	m/s	m²/s	m/s
1	22.03	21.69	0.00473	0.0	0.00072	5.48	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.001
2	21.69	21.35	0.00662	0.0	0.00101	3.91	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.001
3	21.35	21.01	0.00852	0.0	0.00129	3.04	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.001
4	21.01	20.67	0.01041	0.0	0.00158	2.49	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.002

5	20.67	20.33	0.01231	0.0	0.00187	2.10	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.000	0.002
6	20.33	19.99	0.01421	0.0	0.00216	1.82	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.000	0.002
7	19.99	19.65	0.01610	0.0	0.00245	1.61	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.000	0.002
8	19.65	19.31	0.01800	0.0	0.00273	1.44	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.000	0.003
9	19.31	18.97	0.01989	0.0	0.00302	1.30	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.000	0.003
10	18.97	18.63	0.02179	0.0	0.00331	1.19	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.000	0.003
TOT						24.39			22385.60	55963.99						
AVG						0.0016			0.40	16.46						
CUM						24.39					6.58					

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da	
1	21.690	7.51	2.12	0.37	0.06	0.00	0.05	0.06	0.00	1.28	1.28	1.28	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	21.350	7.51	2.12	0.37	0.06	0.00	0.05	0.06	0.00	1.28	1.28	1.28	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	21.010	7.51	2.12	0.37	0.06	0.00	0.05	0.06	0.00	1.28	1.28	1.28	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	20.670	7.51	2.12	0.37	0.06	0.00	0.05	0.06	0.00	1.28	1.28	1.28	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	20.330	7.51	2.12	0.37	0.06	0.00	0.05	0.06	0.00	1.28	1.28	1.28	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	19.990	7.51	2.12	0.37	0.06	0.00	0.05	0.06	0.00	1.28	1.28	1.28	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	19.650	7.51	2.12	0.37	0.06	0.00	0.05	0.06	0.00	1.28	1.28	1.28	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8	19.310	7.51	2.13	0.37	0.06	0.00	0.05	0.06	0.00	1.28	1.28	1.28	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	18.970	7.51	2.14	0.37	0.06	0.00	0.05	0.06	0.00	1.28	1.28	1.28	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10	18.630	7.51	2.15	0.37	0.06	0.00	0.05	0.06	0.00	1.28	1.28	1.28	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C	RATE	1.76	0.23	0.05	0.00	0.03	0.05	0.00	0.67			0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TON mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
1	21.690	30.31	0.20	16.56	443.33	5.69	0.87	1.54	0.96	1.54	0.45	0.00	0.00	0.00	9.00	0.00	0.	0.00	
2	21.350	30.31	0.20	16.72	439.45	5.71	0.59	1.18	0.67	1.18	0.30	0.00	0.00	0.00	8.00	0.00	0.	0.00	
3	21.010	30.31	0.21	16.80	437.31	5.72	0.53	1.03	0.60	1.03	0.25	0.00	0.00	0.00	7.00	0.00	0.	0.00	
4	20.670	30.31	0.21	16.86	435.94	5.73	0.51	0.95	0.57	0.95	0.23	0.00	0.00	0.00	6.00	0.00	0.	0.00	
5	20.330	30.31	0.21	16.89	434.99	5.73	0.50	0.91	0.55	0.91	0.22	0.00	0.00	0.00	5.00	0.00	0.	0.00	
6	19.990	30.31	0.21	16.92	434.30	5.74	0.50	0.89	0.54	0.89	0.22	0.00	0.00	0.00	4.00	0.00	0.	0.00	
7	19.650	30.31	0.21	16.94	433.77	5.74	0.50	0.87	0.53	0.87	0.22	0.00	0.00	0.00	3.00	0.00	0.	0.00	
8	19.310	30.31	0.22	16.96	433.35	5.74	0.49	0.86	0.51	0.86	0.21	0.00	0.00	0.00	2.00	0.00	0.	0.00	
9	18.970	30.31	0.22	16.97	433.01	5.75	0.49	0.85	0.50	0.85	0.21	0.00	0.00	0.00	1.00	0.00	0.	0.00	
10	18.630	30.31	0.22	16.98	432.73	5.76	0.49	0.84	0.49	0.84	0.21	0.00	0.00	0.00	0.00	0.			

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
	km	km													
11	18.63	18.42	0.02297	0.0	0.00351	0.70	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
12	18.42	18.21	0.02415	0.0	0.00369	0.66	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
13	18.21	17.99	0.02534	0.0	0.00387	0.63	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
14	17.99	17.78	0.02789	4.9	0.00426	0.58	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
15	17.78	17.57	0.02907	4.7	0.00444	0.55	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
16	17.57	17.36	0.03025	4.5	0.00462	0.53	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
17	17.36	17.15	0.03143	4.4	0.00480	0.51	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
18	17.15	16.93	0.03261	4.2	0.00499	0.49	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
19	16.93	16.72	0.03380	4.0	0.00517	0.47	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
20	16.72	16.51	0.03498	3.9	0.00535	0.46	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
21	16.51	16.30	0.03616	3.8	0.00553	0.44	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
22	16.30	16.09	0.03734	3.7	0.00571	0.43	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
23	16.09	15.87	0.03852	3.5	0.00589	0.42	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
24	15.87	15.66	0.03971	3.4	0.00607	0.40	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
25	15.66	15.45	0.04089	3.3	0.00625	0.39	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
26	15.45	15.24	0.04207	3.3	0.00643	0.38	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
27	15.24	15.03	0.04325	3.2	0.00661	0.37	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.007
28	15.03	14.81	0.04443	3.1	0.00679	0.36	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.007
29	14.81	14.60	0.04562	3.0	0.00697	0.35	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.007
30	14.60	14.39	0.04680	2.9	0.00715	0.34	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.007
TOT						9.49			27736.38	74963.20					
Avg					0.0052		0.37	17.68							
Cum						33.88					6.54				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

20	16.510	7.51	2.42	0.50	0.06	0.00	0.05	0.06	0.00	1.19	1.19	1.19	0.32	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
21	16.298	7.51	2.43	0.50	0.06	0.00	0.05	0.06	0.00	1.19	1.19	1.19	0.32	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
22	16.086	7.51	2.44	0.50	0.06	0.00	0.05	0.06	0.00	1.19	1.19	1.19	0.32	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
23	15.874	7.51	2.45	0.50	0.06	0.00	0.05	0.06	0.00	1.19	1.19	1.19	0.32	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
24	15.662	7.51	2.45	0.50	0.06	0.00	0.05	0.06	0.00	1.19	1.19	1.19	0.32	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
25	15.450	7.51	2.46	0.50	0.06	0.00	0.05	0.06	0.00	1.19	1.19	1.19	0.32	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
26	15.238	7.51	2.47	0.50	0.06	0.00	0.05	0.06	0.00	1.19	1.19	1.19	0.32	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
27	15.026	7.51	2.48	0.50	0.06	0.00	0.05	0.06	0.00	1.19	1.19	1.19	0.32	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
28	14.814	7.51	2.49	0.50	0.06	0.00	0.05	0.06	0.00	1.19	1.19	1.19	0.32	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
29	14.602	7.51	2.50	0.50	0.06	0.00	0.05	0.06	0.00	1.19	1.19	1.19	0.32	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
30	14.390	7.51	2.50	0.50	0.06	0.00	0.05	0.06	0.00	1.19	1.19	1.19	0.32	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE	2.00	0.31	0.05	0.00	0.03	0.05	0.00	0.62				0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
11	18.418	30.31	0.22	16.95	432.63	5.82	0.53	0.86	0.53	0.86	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
12	18.206	30.31	0.22	16.93	432.54	5.84	0.56	0.87	0.56	0.87	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
13	17.994	30.31	0.22	16.90	432.46	5.85	0.57	0.89	0.57	0.89	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
14	17.782	30.31	0.22	16.05	411.18	5.27	3.12	0.86	3.12	0.86	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
15	17.570	30.31	0.22	16.07	411.98	5.24	2.45	0.87	2.45	0.87	2.39	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
16	17.358	30.31	0.22	16.08	412.72	5.31	1.97	0.88	1.97	0.88	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
17	17.146	30.31	0.22	16.09	413.40	5.41	1.63	0.89	1.63	0.89	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
18	16.934	30.31	0.22	16.10	414.03	5.50	1.38	0.90	1.38	0.90	1.44	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
19	16.722	30.31	0.22	16.11	414.62	5.58	1.19	0.90	1.19	0.90	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
20	16.510	30.31	0.22	16.12	415.16	5.64	1.06	0.91	1.06	0.91	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
21	16.298	30.31	0.22	16.13	415.67	5.69	0.96	0.91	0.96	0.91	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
22	16.086	30.31	0.22	16.14	416.15	5.73	0.88	0.92	0.88	0.92	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
23	15.874	30.31	0.22	16.15	416.60	5.77	0.82	0.92	0.82	0.92	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
24	15.662	30.31	0.22	16.16	417.02	5.79	0.78	0.93	0.78	0.93	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
25	15.450	30.31	0.22	16.16	417.42	5.82	0.74	0.93	0.74	0.93	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
26	15.238	30.31	0.22	16.17	417.80	5.84	0.72	0.94	0.72	0.94	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
27	15.026	30.31	0.22	16.18	418.15	5.85	0.70	0.94	0.70	0.94	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
28	14.814	30.31	0.22	16.18	418.49	5.87	0.68	0.94	0.68	0.94	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
29	14.602	30.31	0.22	16.19	418.81	5.88	0.67	0.94	0.67	0.94	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
30	14.390	30.31	0.22	16.19	419.11	5.89	0.66	0.95	0.66	0.95	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 3 BT03 TO GLASS SHOP WEIR
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW deg C	TEMP ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
31	UPR RCH	0.04680	30.31	0.22	16.19	419.11	5.89	0.66	0.95	0.66	0.95	0.46	0.00	0.00	0.00	0.00	0.00
EACH	INCR	0.00131	30.31	0.19	12.80	381.20	2.00	0.78	0.86			0.28	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
31	14.39	14.16	0.04811	2.8	0.00756	0.36	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
32	14.16	13.92	0.04942	2.8	0.00776	0.35	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
33	13.92	13.69	0.05073	2.7	0.00797	0.34	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
34	13.69	13.45	0.05204	2.6	0.00818	0.33	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
35	13.45	13.22	0.05335	2.6	0.00838	0.32	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
36	13.22	12.98	0.05466	2.5	0.00859	0.32	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.009
37	12.98	12.75	0.05597	2.4	0.00879	0.31	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.009
38	12.75	12.51	0.05728	2.4	0.00900	0.30	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.009
39	12.51	12.28	0.05859	2.3	0.00920	0.30	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.009
40	12.28	12.04	0.05990	2.3	0.00941	0.29	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.009
TOT						3.22			14957.28	41548.00					
AVG						0.0084			0.36	17.68					
CUM						37.10									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST mg/L	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da	
31	14.155	7.51	2.59	0.43	0.06	0.00	0.05	0.06	0.00	1.07	1.07	1.07	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
32	13.920	7.51	2.60	0.43	0.06	0.00	0.05	0.06	0.00	1.07	1.07	1.07	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
33	13.685	7.51	2.61	0.43	0.06	0.00	0.05	0.06	0.00	1.07	1.07	1.07	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
34	13.450	7.51	2.62	0.43	0.06	0.00	0.05	0.06	0.00	1.07	1.07	1.07	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
35	13.215	7.51	2.63	0.43	0.06	0.00	0.05	0.06	0.00	1.07	1.07	1.07	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
36	12.980	7.51	2.64	0.43	0.06	0.00	0.05	0.06	0.00	1.07	1.07	1.07	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
37	12.745	7.51	2.65	0.43	0.06	0.00	0.05	0.06	0.00	1.07	1.07	1.07	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
38	12.510	7.51	2.66	0.43	0.06	0.00	0.05	0.06	0.00	1.07	1.07	1.07	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
39	12.275	7.51	2.67	0.43	0.06	0.00	0.05	0.06	0.00	1.07	1.07	1.07	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
40	12.040	7.51	2.68	0.43	0.06	0.00	0.05	0.06	0.00	1.07	1.07	1.07	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C	RATE	2.18	0.27	0.05	0.00	0.03	0.05	0.00	0.56		0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST mg/L	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
31	14.155	30.31	0.22	16.10	418.08	5.99	0.66	0.93	0.66	0.93	0.43	0.00	0.00	0.00	0.00	0.00	0.	0.00	
32	13.920	30.31	0.22	16.01	417.10	6.05	0.66	0.91	0.66	0.91	0.41	0.00	0.00	0.00	0.00	0.00	0.	0.00	
33	13.685	30.31	0.21	15.93	416.17	6.08	0.66	0.89	0.66	0.89	0.38	0.00	0.00	0.00	0.00	0.00	0.	0.00	
34	13.450	30.31	0.21	15.85	415.29	6.09	0.67	0.87	0.67	0.87	0.36	0.00	0.00	0.00	0.00	0.00	0.	0.00	
35	13.215	30.31	0.21	15.78	414.46	6.11	0.67	0.86	0.67	0.86	0.34	0.00	0.00	0.00	0.00				

37	12.745	30.31	0.21	15.64	412.90	6.12	0.67	0.83	0.67	0.83	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
38	12.510	30.31	0.20	15.57	412.18	6.13	0.67	0.82	0.67	0.82	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
39	12.275	30.31	0.20	15.51	411.48	6.14	0.67	0.81	0.67	0.81	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
40	12.040	30.31	0.20	15.45	410.82	6.14	0.67	0.80	0.67	0.80	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 4 GLASS SHOP WEIR TO COTEAU WEIR

UPPER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/18/07
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW deg C	TEMP ppt	SALN MG/L	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
41	UPR RCH	0.05990	30.31	0.20	15.45	410.82	6.14	0.67	0.80	0.67	0.80	0.27	0.00	0.00	0.00	0.00	0.00	
41	DAM	WEIR #1 Glass ADDS	0.00	MG/L	DISSOLVED OXYGEN GIVING	6.14	MG/L	D.O. FOR THE UPR RCH INPUT										
EACH	INCR	-0.00210																

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
41	12.04	11.78	0.05780	2.3	0.00717	0.42	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.007
42	11.78	11.51	0.05570	2.3	0.00691	0.44	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.007
43	11.51	11.25	0.05360	2.3	0.00665	0.46	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.007
44	11.25	10.99	0.05151	2.3	0.00639	0.48	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.006
45	10.99	10.72	0.04941	2.3	0.00613	0.50	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.006
46	10.72	10.46	0.04731	2.3	0.00587	0.52	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.006
47	10.46	10.20	0.04521	2.3	0.00561	0.54	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.006
48	10.20	9.94	0.04311	2.3	0.00535	0.57	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.005
49	9.94	9.67	0.04102	2.3	0.00509	0.60	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.005
50	9.67	9.41	0.03892	2.3	0.00483	0.63	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.005
TOT					5.16				21212.00	43289.80					
AVG			0.0059			0.49	16.46				8.07				
CUM					42.26										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST mg/L	SAT D.O. 1/d/a	REAER RATE 1/d/a	BOD#1 DECAY 1/d/a	BOD#1 SETT 1/d/a	ABOD#1 DECAY 1/d/a	BOD#2 DECAY 1/d/a	BOD#2 SETT 1/d/a	ABOD#2 DECAY 1/d/a	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d/a	ORGN SETT 1/d/a	NH3 DECAY 1/d/a	NH3 SRCE *	DENIT RATE 1/d/a	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d/a	NCM DECAY 1/d/a	NCM SETT 1/d/a
41	11.777	7.51	1.89	0.48	0.06	0.00	0.06	0.06	0.00	0.59	0.59	0.59	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
42	11.514	7.51	1.88	0.48	0.06	0.00	0.06	0.06	0.00	0.59	0.59	0.59	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
43	11.251	7.51	1.87	0.48	0.06	0.00	0.06	0.06	0.00	0.59	0.59	0.59	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
44	10.988	7.51	1.86	0.48	0.06	0.00	0.06	0.06	0.00	0.59	0.59	0.59	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
45	10.725	7.51	1.85	0.48	0.06	0.00	0.06	0.06	0.00	0.59	0.59	0.59	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
46	10.462	7.51	1.85	0.48	0.06	0.00	0.06	0.06	0.00	0.59	0.59	0.59	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
47	10.199	7.51	1.84	0.48	0.06	0.00	0.06	0.06	0.00	0.59	0.59	0.59	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
48	9.936	7.51	1.83	0.48	0.06	0.00	0.06	0.06	0.00	0.59	0.59	0.59	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

49	9.673	7.51	1.82	0.48	0.06	0.00	0.06	0.06	0.00	0.59	0.59	0.59	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
50	9.410	7.51	1.81	0.48	0.06	0.00	0.06	0.06	0.00	0.59	0.59	0.59	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AVG	20	DEG C	RATE	1.53	0.30	0.05	0.00	0.04	0.05	0.00	0.31			0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
41	11.777	30.31	0.20	15.45	410.82	6.35	0.74	0.83	0.74	0.83	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
42	11.514	30.31	0.20	15.45	410.82	6.46	0.79	0.86	0.79	0.86	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
43	11.251	30.31	0.20	15.45	410.82	6.52	0.84	0.89	0.84	0.89	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
44	10.988	30.31	0.20	15.45	410.82	6.54	0.88	0.92	0.88	0.92	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
45	10.725	30.31	0.20	15.45	410.82	6.55	0.91	0.94	0.91	0.94	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
46	10.462	30.31	0.19	15.45	410.82	6.54	0.94	0.97	0.94	0.97	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
47	10.199	30.31	0.19	15.45	410.82	6.53	0.96	1.00	0.96	1.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
48	9.936	30.31	0.19	15.45	410.82	6.52	0.98	1.02	0.98	1.02	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
49	9.673	30.31	0.19	15.45	410.82	6.51	0.99	1.05	0.99	1.05	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
50	9.410	30.31	0.19	15.45	410.82	6.50	1.00	1.07	1.00	1.07	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00

FINAL REPORT BT01

REACH NO. 5 COTEAU WEIR TO SONIC WEIR

UPPER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/18/07

UPSTREAM OF THE WEIR # 3(SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW deg C	TEMP ppt	SALN	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L	
51	UPR RCH	0.03892	30.31	0.19	15.45	410.82	6.50	1.00	1.07	1.00	1.07	0.40	0.00	0.00	0.00	0.00	0.00	0.00	
51	DAM	WEIR #2 Coteau ADDS	0.02	MG/L	DISSOLVED OXYGEN	GIVING	6.52	MG/L	D.O. FOR THE UPR RCH INPUT										
EACH	INCR	-0.00133																	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
51	9.41	9.16	0.03759	2.3	0.00224	1.28	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
52	9.16	8.91	0.03626	2.3	0.00216	1.33	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
53	8.91	8.67	0.03492	2.3	0.00208	1.38	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
54	8.67	8.42	0.03359	2.3	0.00200	1.44	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
55	8.42	8.17	0.03226	2.3	0.00192	1.49	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
56	8.17	7.92	0.03093	2.3	0.00184	1.56	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
57	7.92	7.67	0.02960	2.3	0.00176	1.63	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
58	7.67	7.43	0.02827	2.3	0.00168	1.71	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
59	7.43	7.18	0.02694	2.3	0.00160	1.79	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
60	7.18	6.93	0.02561	2.3	0.00152	1.88	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002

TOT		15.49		41654.07	43846.40	
AVG		0.0019	0.95	17.68	16.80	
CUM		57.75				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER	BOD#1 RATE 1/da	BOD#1 DECAY SETT	ABOD#1 DECAY 1/da	BOD#2 DECAY SETT	BOD#2 DECAY 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
51	9.162	7.51	0.89	0.40	0.06	0.00	0.05	0.06	0.00	1.26	1.26	1.26	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	8.914	7.51	0.89	0.40	0.06	0.00	0.05	0.06	0.00	1.26	1.26	1.26	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	8.666	7.51	0.89	0.40	0.06	0.00	0.05	0.06	0.00	1.26	1.26	1.26	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	8.418	7.51	0.89	0.40	0.06	0.00	0.05	0.06	0.00	1.26	1.26	1.26	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	8.170	7.51	0.89	0.40	0.06	0.00	0.05	0.06	0.00	1.26	1.26	1.26	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56	7.922	7.51	0.89	0.40	0.06	0.00	0.05	0.06	0.00	1.26	1.26	1.26	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57	7.674	7.51	0.89	0.40	0.06	0.00	0.05	0.06	0.00	1.26	1.26	1.26	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58	7.426	7.51	0.89	0.40	0.06	0.00	0.05	0.06	0.00	1.26	1.26	1.26	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59	7.178	7.51	0.89	0.40	0.06	0.00	0.05	0.06	0.00	1.26	1.26	1.26	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	6.930	7.51	0.89	0.40	0.06	0.00	0.05	0.06	0.00	1.26	1.26	1.26	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avg	20	DEG C RATE	0.74	0.25	0.05	0.00	0.03	0.05	0.00	0.66			0.10	0.03	0.00	0.00	0.00			0.00	0.00	0.00	

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
51	9.162	30.31	0.19	15.45	410.82	6.02	0.74	1.00	0.74	1.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
52	8.914	30.31	0.19	15.45	410.82	5.83	0.56	0.93	0.56	0.93	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
53	8.666	30.31	0.19	15.45	410.82	5.77	0.45	0.87	0.45	0.87	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
54	8.418	30.31	0.19	15.45	410.82	5.77	0.38	0.82	0.38	0.82	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
55	8.170	30.31	0.19	15.45	410.82	5.78	0.34	0.77	0.34	0.77	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
56	7.922	30.31	0.18	15.45	410.82	5.80	0.31	0.73	0.31	0.73	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
57	7.674	30.31	0.18	15.45	410.82	5.82	0.30	0.69	0.30	0.69	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
58	7.426	30.31	0.18	15.45	410.82	5.83	0.29	0.65	0.29	0.65	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
59	7.178	30.31	0.18	15.45	410.82	5.84	0.28	0.62	0.28	0.62	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
60	6.930	30.31	0.18	15.45	410.82	5.84	0.28	0.60	0.28	0.60	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00

UPPER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/18/07
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02	22.03	18.63	3.40	24.39	0.02179	0.00161	0.400	16.46	0.769	0.005	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	9.49	0.04680	0.00517	0.370	17.68	1.652	0.017	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.22	0.05990	0.00844	0.360	17.68	2.115	0.028	1.181	58.01

4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.16	0.03892	0.00590	0.490	16.46	1.374	0.019	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	15.49	0.02561	0.00185	0.950	17.68	0.904	0.006	3.117	58.01

.....EXECUTION COMPLETED

**APPENDIX E2 – SUMMER PROJECTION
WATER QUALITY INPUT JUSTIFICATIONS
(Upper Terrebonne Model)**

WATER QUALITY INPUT DATA AND JUSTIFICATION

BAYOU TERREBONNE SUBSEGMENT 120301

SUMMER PROJECTION (Upper Terrebonne Model)

Schriever School Treatment Level:

CBOD₅ = 30 mg/L

NHN-3 = 15 mg/L

DO = 2.0 mg/L

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)			
DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
OCEAN EXCHANGE RATIO	0		No tidal impacts
TIDE HEIGHT	0.0	meters	No tidal impacts
MAXIMUM ITERATION LIMIT	200		Adjusted for convergence
EFFECTIVE BOD DUE TO ALGAE	0.01	mg/L BOD /ug chl a/ day	Calibration
ALGAE OXYGEN PRODUCTION	0	mg O / ug chl a / day	Turned off for simulation
HYDRAULIC CALCULATION METHOD	2		Widths and depths

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)						
DATA TYPE 8 - REACH IDENTIFICATION DATA						
Reach	ID	Name	Upstream River Kilometer	Downstream River Kilometer	Element Length, km	Data Source
1	BT	Upper Bayou Terrebonne, Reach1, BT01 to BT02	22.03	18.63	0.3400	GIS and survey data
2	BT	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	18.63	14.39	0.2120	Same as reach 1
3	BT	Upper Bayou Terrebonne, Reach 3, BT03 TO Glass Shop Weir	14.39	12.04	0.2350	Same as reach 1
4	BT	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	12.04	9.41	0.2630	Same as reach 1
5	BT	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	9.41	6.93	0.2480	Same as reach 1

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)														
DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS														
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source	
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	0	0	16.46	Site BT02	0	0	0.40	Site BT02	0	Best professional judgement and knowledge of the area - value used in all reaches	0.03	Environmental Engineering, P.E. Examination Guide and Handbook by C. King, p. 113	
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	0	0	17.68	Site BT03	0	0	0.37	Site BT03	0	Same as Reach 1	0.03	Same as Reach 1	
3	Upper Bayou Terrebonne, Reach 3, BT03 TO Glass Shop Weir	0	0	17.68	Site BT04	0	0	0.36	Site BT04	0	Same as Reach 1	0.03	Same as Reach 1	
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	0	0	16.46	Site BT05a	0	0	0.49	Site BT05a	0	Same as Reach 1	0.03	Same as Reach 1	

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)														
DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS														
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source	
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	0	0	17.68	Site BT06	0	0	0.95	Site BT06	0	Same as Reach 1	0.03	Same as Reach 1	

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)							
DATA TYPE 11 - INITIAL CONDITIONS							
Reach	Name	Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chl a	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 & BT02	30.31	0.20	5.0	Summer 90 th percentile temperature for WQN site 110; DO set to criteria; salinity retained from BT01 continuous monitor data	10.00	Assumed that chlorophyll a would be reduced but not eliminated with reduction in nutrients in reach 1
2	Upper Bayou Terrebonne, Reach 2, BT02 & BT03	30.31	0.22	5.0	Temp amd DO source same as reach 1; salinity retained from BT02 insitu data	0.00	Assumed that chl a would be reduced to insignificant levels with reduction in nutrients
3	Upper Bayou Terrebonne, Reach 3, BT03 TO Glass Shop Weir	30.31	0.22	5.0	Temp amd DO source same as reach 1; salinity retained from BT03 insitu data	0.00	Same as reach 2
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	30.31	0.20	5.0	Temp amd DO source same as reach 1; salinity retained from BT05 continuous monitor data	0.00	Same as reach 2
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	30.31	0.19	5.0	Temp amd DO source same as reach 1; salinity retained from BT05a insitu data	0.00	Same as reach 2

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)																			
DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS																			
REACH	NAME	K ₂ OPT	K ₂ "A"	K ₂ "B"	K ₂ "C"	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Anearobic BOD1 Dec Rate (1/day)	Aerobic BOD2 Dec Rate (1/day)	Anearobic BOD2 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	BOD2 SETT RATE (1/day)	Data Source	SETTLED BOD1 CONV TO SOD	SETTLED BOD2 CONV TO SOD	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	15	0.0	0	0	LA Equation	0.67	SOD based on 80% reduction in nonpoint load	0.23		0.03		Site BT02	0.05	0.05	Calibration	0	0	BOD not converted to SOD
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	15	0.0	0	0	LA Equation	0.62	SOD based on 80% reduction in nonpoint load	0.31		0.03		Site BT03	0.05	0.05	Same as reach 1	0	0	Same as reach 1
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	15	0.0	0	0	LA Equation	0.56	SOD based on 80% reduction in nonpoint load	0.27		0.03		Site BT04	0.05	0.05	Same as reach 1	0	0	Same as reach 1
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	15	0.0	0	0	LA Equation	0.31	SOD based on 80% reduction in nonpoint load	0.30		0.04		Site BT05a	0.05	0.05	Same as reach 1	0	0	Same as reach 1
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	15	0.0	0	0	LA Equation	0.66	SOD based on 80% reduction in nonpoint load	0.25		0.03		Site BT06	0.05	0.05	Same as reach 1	0	0	Same as reach 1

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)				
DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS				
Reach	Name	NBOD decay rate, 1/day	NBOD settling rate, 1/day	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	0.11	0.025	Site BT02; Calibration
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	0.17	0.025	Site BT03; Calibration
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	0.06	0.025	Site BT04; Calibration
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	0.10	0.025	Site BT05a; Calibration
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	0.10	0.025	Site BT06; Calibration

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)									
DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Ouflow, cms	Incr. Inflow, cms	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I	Cons. Mat II	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02		0.01896	Retained from calibration model	30.31	0.22	17.1	429.8	Summer 90 th percentile temperature for WQN site 110; WQ data based on insitu data and lab data for Site BT02
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03		0.02364	Retained from calibration model	30.31	0.22	16.4	430.8	Temp source same as reach 1; WQ data based on insitu data and lab data for Site BT03
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir-		0.01310	Retained from calibration model	30.31	0.19	12.8	381.2	Temp source same as reach 1; WQ data based on insitu data and lab data for Site BT04
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	-0.02098		Retained from calibration model					WQ data not needed for outflow

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)									
DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Ouflow, cms	Incr. Inflow, cms	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I	Cons. Mat II	Data Source
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	-0.01331		Retained from calibration model					Same as reach 4

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)									
DATA TYPES 17 - INCREMENTAL DATA FOR DO, BOD, AND NITROGEN									
Reach	Reach Name	DO, mg/l	UCBOD 1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH ³ -N, mg/L	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	2.0	0.91		0.60			0.99	DO value representative of bankflow and inflow from small ditches; BOD based on 80% reduction of nonpoint loads
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	2.0	0.80		0.68			1.06	DO value representative of bankflow and inflow from small ditches; BOD based on 80% reduction of nonpoint loads
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	2.0	0.78		0.28			0.86	DO value representative of bankflow and inflow from small ditches; BOD based on 80% reduction of nonpoint loads
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir								WQ data not needed for outflow

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)									
DATA TYPES 17 - INCREMENTAL DATA FOR DO, BOD, AND NITROGEN									
Reach	Reach Name	DO, mg/l	UCBOD 1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH ³ -N, mg/L	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)								Same as reach 4

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)						
DATA TYPE 19 - NONPOINT SOURCES						
Reach	Reach Name	Length of Reach, km	UCBOD1 (kg/day)	NBOD (kg/day)	UCBOD2 (kg/day)	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	3.40	4.11	0.49	1.78	Based on 80% reduction in nonpoint load
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	4.24	9.11	2.07	2.89	Same as reach 1
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	2.35	4.89	0.0	0.78	Same as reach 1
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	2.63	12.00	2.22	3.78	Same as reach 1
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	2.48	5.33	0.33	2.18	Same as reach 1

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)								
DATA TYPES 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES								
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms	Temp, deg C	Sal, ppt	Conservative Material I (Chlorides)	Conservative Material II (Conductivity)	Data Source
Reach 1 Headwaters of Upper Bayou Terrebonne upstream of weir # 3	1	Not used	0.00283	30.31	0.2	16.2	452.39	Flow based on LTP recommendations; Temp set to summer 90 th percentile for WQN site 110; 24-hr average value for site BT01 used for salinity, conductivity; chlorides data was obtained from the lab data for Site BT01

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)					
DATA TYPES 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN					
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	UCBOD2, mg/l	Data Source
Reach 1 Headwaters of Upper Bayou Terrebonne upstream of weir # 3	6.77	2.70	1.14	2.76	Headwater DO value set to 90 percent of saturation DO concentration; UCBOD1, UCBOD2, and NBOD values based on 80% reduction of nonpoint load

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)

DATA TYPES 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES

Headwater Name	Chlorophyll a, ug/L	Date Source
Reach 1 Headwaters of Upper Bayou Terrebonne upstream of weir # 3	10.0	Assumed that chlorophyll a would be reduced but not eliminated with reduction in nutrients

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)							
DATA TYPES 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES							
Wasteload / Withdrawal Name	EL #	Flow, cms	Temperature , deg C	Salinity	Conservative Material I	Conservative Material II	Data Source
Schriever School	14	0.0013675	30.0				Modeled discharge based on expected facility discharge with a 20 percent MOS

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)										
DATA TYPES 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN										
Wasteload / Withdrawal Name	EL #	DO, mg/l	UCBOD1, mg/l	BOD decayed, percent	UNBOD, mg/l	NH ₃ -N, mg/L	NH ₃ -N nitrified, percent	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
Schriever School	14	2.0	69.0		64.5					Recommended BOD value based on the permitted BOD limits; facility load has minimal impact; post aeration is not recommended

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)

DATA TYPES 26 - WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES

Wasteload / Withdrawal Name	EL #	Phosphorus, mg/L	Chlorophyll-A, ug/L	Coliform, #/100 mL	Nonconservative Material	Data Source
Schriever School	14					These parameters were not included in the projection models

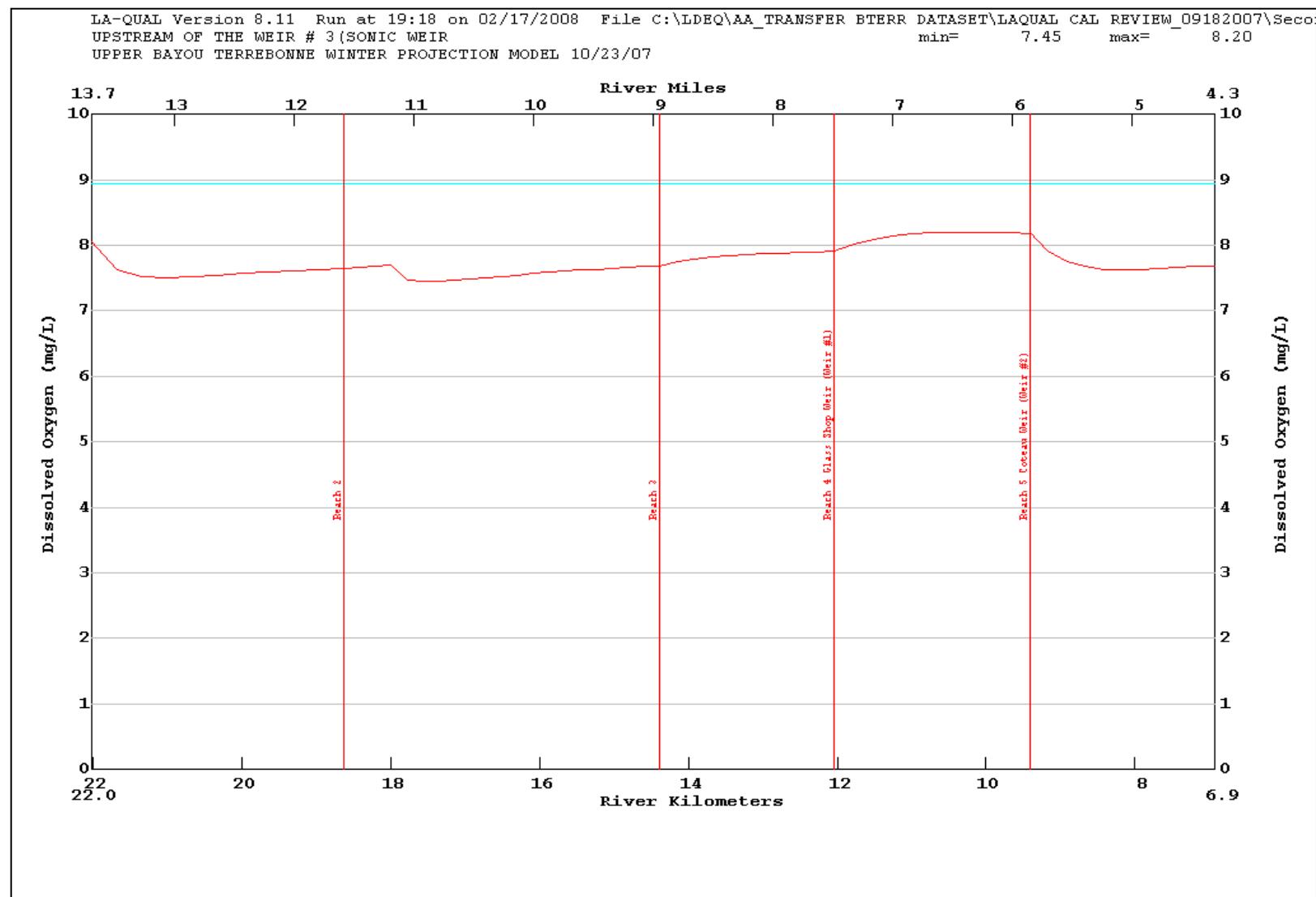
Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)			
DATA TYPES 27 - LOWER BOUNDARY CONDITIONS			
Parameter	Value	Units	Data Source
TEMPERATURE	30.31	degrees Celsius	Summer 90 th percentile temperature for WQN site 110
SALINITY	0.18	ppt	Site BT06 insitu data
CONSERVATIVE MATERIAL I	11.7	mg/L	Site BT06 lab data
CONSERVATIVE MATERIAL II	359.60	mg/L	Site BT06 insitu data
DISSOLVED OXYGEN	5.0	mg/L	DO set to criteria
BIOCHEMICAL OXYGEN DEMAND 1	2.85	mg/L	Site BT06 BOD data
BIOCHEMICAL OXYGEN DEMAND 2	3.44	mg/L	Site BT06 BOD data
NBOD	1.71	mg/L	Site BT06 BOD data
CHLOROPHYLL A	0	ug/L	Assumed that chlorophyll a would be reduced to insignificant levels with reduction in nutrients

Bayou Terrebonne 120301 Summer Justifications (UpperTerrebonne Model)

DATA TYPE 28 – DAM DATA

Dam Name	EL #	Dam Reaeration Option	Water Quality Factor, "a"	Weir Dam aeration coefficient, "b"	Static head loss over dam, "H"	Data Source
Weir # 1 (Bayou Terrebonne model upstream of weir # 3)	41	1	0.65	0.0	0.2	Survey data from weir # 1 and recommended dam aeration from the LAQUAL User's Manual
Weir # 2 (Bayou Terrebonne model upstream of weir # 3)	51	1	0.65	0.1	0.32	Survey data from weir # 2 and recommended dam aeration from the LAQUAL User's Manual

**APPENDIX E3 – WINTER PROJECTION MODEL GRAPHS, INPUT FILE, AND
OUTPUT FILE
(Upper Terrebonne Model)**



UPPER TERREBONNE INPUT FILE - WINTER PROJECTION

```
TITLE01      UPPER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
TITLE02      UPSTREAM OF THE WEIR # 3(SONIC WEIR
! Modeled CBOD1, CBOD2, NBOD, and DO; constant widths and depths;
!
! HYDROLOGIC CALIBRATION DONE AS MUCH AS POSSIBLE
! WQ Winter Projection for CBOD1, CBOD2, AND NBOD
! 80 % NP reduction; Schriever School 30/15; MOS=10%
CONTROL YES METRIC UNITS
ENDATA01
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES           IN MG/L
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY        IN MG/L
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1
MODOPT07 YES BOD2
MODOPT08 YES NBOD OXYGEN DEMAND                         IN MG/L
MODOPT09 NO PHOSPHORUS
MODOPT10 NO CHLOROPHYLL A
MODOPT11 NO MACROPHYTES
MODOPT12 NO COLIFORM
MODOPT13 NO NONCONSERVATIVE MATERIAL = NBOD               IN MG/L
ENDATA02
!PROGRAM LOGICAL UNIT NUMBER FOR SEQUENCING =      0.0
PROGRAM KL MINIMUM          =      0.7
PROGRAM MAXIMUM ITERATION LIMIT =    200.
PROGRAM HYDRAULIC CALCULATION METHOD =     2.
! No Tide Height for model due to three weirs
PROGRAM TIDE HEIGHT          =      0.0
PROGRAM TIDAL PERIOD         =     25.0
PROGRAM EFFECTIVE BOD DUE TO ALGAE =    0.01
PROGRAM ALGAE OXYGEN PRODUCTION RATE =   0.0
PROGRAM INHIBITION CONTROL VALUE =     3
PROGRAM OCEAN EXCHANGE RATIO =    0.0
PROGRAM SETTLING RATE UNITS =      2
ENDATA03
ENDATA04
ENDATA05
ENDATA06
ENDATA07
! REACH INFO ENTERED 9/16/04;
!000000001111111122222223333333344444444555555556666666677777777778
!234567890123456789012345678901234567890123456789012345678901234567890
REACH ID 1 BT BT01 & BT-02          22.03 18.63 0.3400
REACH ID 2 BT BT02 & BT-03          18.63 14.39 0.2120
REACH ID 3 BT BT03 TO GLASS SHOP WEIR 14.39 12.04 0.2350
REACH ID 4 BT GLASS SHOP WEIR TO COTEAU WEIR 12.04 9.41 0.2630
REACH ID 5 BT COTEAU WEIR TO SONIC WEIR 9.41 6.93 0.2480
ENDATA08
!
! Datatype 9 revised 9/24/2007; width and depth constants determined by the
! downstream site in each reach
HYDR-1 1 0 0 16.46 0 0 0.40 0 0.03
HYDR-1 2 0 0 17.68 0 0 0.37 0 0.03
HYDR-1 3 0 0 17.68 0 0 0.36 0 0.03
```

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

HYDR-1	4	0	0	16.46	0	0	0.49	0	0.03
HYDR-1	5	0	0	17.68	0	0	0.95	0	0.03

ENDATA09

!REACH INFO ENTERED 10/31/04; This area not considered to be tidal due to weirs;

!Used default dispersion option = 1 -->dispersion = "a", i.e. dispersion = 0

!00000000111111112222222333333334444444455555555666666666677777777778

!234567890123456789012345678901234567890123456789012345678901234567890

!

RCH TRANGE "a" "b" "c" "d"

HYDR-2 1 0.0 0.00 0.830 0 1.00

HYDR-2 2 0.0 0.00 0.830 0 1.00

HYDR-2 3 0.0 0.00 0.830 0 1.00

HYDR-2 4 0.0 0.00 0.830 0 1.00

HYDR-2 5 0.0 0.00 0.830 0 1.00

ENDATA10

! Modified for summer projection 10/18/07; chla removed except for reach 1

! which was exceedingly high in calibration

!000000001111111122222223333333344444444555555556666666666777777778

!234567890123456789012345678901234567890123456789012345678901234567890

!

TEMP SAL DO CHL A MACRO

INITIAL 1 20.83 0.20 5.00 0.00 0.000 0.00 10.00 0.0

INITIAL 2 20.83 0.22 5.00 0.00 0.000 0.00 0.00 0.0

INITIAL 3 20.83 0.22 5.00 0.00 0.000 0.00 0.00 0.0

INITIAL 4 20.83 0.20 5.00 0.00 0.000 0.00 0.00 0.0

INITIAL 5 20.83 0.19 5.00 0.00 0.000 0.00 0.00 0.0

ENDATA11

```
! Data Entered 9/19/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream
! end of each reach
!0000000011111111222222233333333444444445555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!          REAERATION           SOD BOD1DEC SETT CON2SOD ANEARO BOD2DEC SETT CON2SOD ANEARO
COEF-1    1     15   0.0   0.0    0.0   0.67   0.23   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    2     15   0.0   0.0    0.0   0.62   0.31   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    3     15   0.0   0.0    0.0   0.56   0.27   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    4     15   0.0   0.0    0.0   0.31   0.30   0.05   0.0   0.0   0.04   0.05   0.0   0.0
COEF-1    5     15   0.0   0.0    0.0   0.66   0.25   0.05   0.0   0.0   0.03   0.05   0.0   0.0
ENDATA12
! Data Entered 9/19/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream
! end of each reach
!000000001111111122222223333333344444444555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!          NBODDEC NBODSETT
COEF-2    1     0.11  0.025   0.0   0.0   0.0   0.0
COEF-2    2     0.17  0.025   0.0   0.0   0.0   0.0
COEF-2    3     0.06  0.025   0.0   0.0   0.0   0.0
COEF-2    4     0.10  0.025   0.0   0.0   0.0   0.0
COEF-2    5     0.10  0.025   0.0   0.0   0.0   0.0
ENDATA13
ENDATA14
ENDATA15
! TEMP modified for summer projection on 10/18/07
! Assumed same incremental flow for summer projections
!000000001111111122222233333333444444445555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!          R#    OUTFLOW    INFLOW      TEMP      SAL CONSERVI CONSERV2
INCR-1    1           0.01896   20.83   0.22   17.1   429.8
INCR-1    2           0.02364   20.83   0.22   16.4   430.8
INCR-1    3           0.01310   20.83   0.19   12.8   381.2
INCR-1    4       -0.02098
INCR-1    5       -0.01331
ENDATA16
```

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

! DO modified for summer projection on 10/18/07
!0000000011111111222222233333334444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
INCR-2 R# DO BOD1 NBOD NH3 NO2 BOD2
INCR-2 1 2.00 0.91 0.60 0.99
INCR-2 2 2.00 0.80 0.68 1.06
INCR-2 3 2.00 0.78 0.28 0.86
INCR-2 4
INCR-2 5
ENDATA17
!
Chlor a modified for summer projection on 10/18/07
!000000001111111122222223333333444444445555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
INCR-3 R# PHOS CHLORA COLI NCM
INCR-3 1 0.0
INCR-3 2 0.0
INCR-3 3 0.0
INCR-3 4
INCR-3 5
ENDATA18
!
Data modified 7/8/05; recalibrated 10/8/2007
!000000001111111122222223333333444444445555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
NONPOINT BOD1 NBOD DO BOD2
NONPOINT 1 4.11 0.49 1.78
NONPOINT 2 9.11 2.07 2.89
NONPOINT 3 4.89 0.0 0.78
NONPOINT 4 12.00 2.22 3.78
NONPOINT 5 5.33 0.33 2.18
ENDATA19
!
ALL HEADWATER DATA HAS BEEN INPUT
!
modified flow and temp for summer projection on 10/18/07
!000000001111111122222223333333444444445555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
HDWTR-1 1 BT01 FLOW TEMP SAL CL COND
HDWTR-1 1 BT01 0 0.02831 20.83 0.2 16.2 452.39
ENDATA20
!
modified DO for summer projection on 10/18/07

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

```
!00000000111111112222222333333344444444555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      DO      BOD1      NBOD          BOD2
HDWTR-2    1      8.05     2.70     1.14      0.0      0.0     2.76
ENDATA21
!   Chlor a data modified for summer projection on 10/18/07; CHLOR A set to 10
! because value used in calibration was exceedingly high
!00000000111111112222222333333344444444555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      CHL A
HDWTR-3    1      0.0      10.0      0.0      0.0
ENDATA22
ENDATA23
!00000000111111112222222333333344444444555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      Name      Flow      TEMP
WSTLD-1    14      Schriever School 0.0013675      30.0      0.0      0.00      0.0
ENDATA24
!00000000111111112222222333333344444444555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      DO      BOD1      NBOD          BOD2
WSTLD-2    14      2.0      69.00     0.0      64.50      0.00     0.0      0.00      0.0
ENDATA25
!00000000111111112222222333333344444444555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      Chlor a
WSTLD-3    14      0.000     0.000     0.000    53.1300
ENDATA26
!
      LBC data entered 9/19/04; revised 10/16/07
! modified Temp, Do, and chlor a for summer projection on 10/18/07
LOWER BC TEMPERATURE          = 20.83
LOWER BC SALINITY             = 0.18
LOWER BC CONSERVATIVE MATERIAL I = 11.7
LOWER BC CONSERVATIVE MATERIAL II = 359.60
LOWER BC DISSOLVED OXYGEN      = 5.00
LOWER BC BOD1                  = 2.85
LOWER BC BOD2                  = 3.44
LOWER BC PHOSPHORUS           = 0.00
```

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

```
LOWER BC CHLOROPHYLL A          =    0.00
LOWER BC COLIFORM                =    0.00
LOWER BC NBOD                     =   1.71
ENDATA27
! Data modified 7/8/05
!000000001111111122222223333333344444444555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
DAM DATA  41        WEIR #1 Glass    1      0.65      0.0      0.2
DAM DATA  51        WEIR #2 Coteau    1      0.65      0.1      0.32
ENDATA28
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 5
PLOT RCH 1 2 3 4 5
ENDATA30
OVERLAY 1 UpBTProjOvrlay.txt
ENDATA31
```

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

UPPER TERREBONNE OUTPUT FILE - WINTER PROJECTION

LA-QUAL Version 8.11

Louisiana Department of Environmental Quality

Input file is C:\LDEQ\AA_TRANSFER BTERR DATASET\LAQUAL CAL REVIEW_09182007\Second Revision 2008 Projections\North of Weir 3\UpBTerrWin5Rrev2_80per30_10MOS.txt
Output produced at 12:35 on 02/23/2008

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE CONTROL TITLES

TITLE01 UPPER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
TITLE02 UPSTREAM OF THE WEIR # 3(SONIC WEIR
CONTROL YES METRIC UNITS
ENDATA01

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE MODEL OPTION

MODOPT01	NO	TEMPERATURE	
MODOPT02	NO	SALINITY	
MODOPT03	YES	CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MODOPT04	YES	CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN MG/L
MODOPT05	YES	DISSOLVED OXYGEN	
MODOPT06	YES	BOD1	
MODOPT07	YES	BOD2	
MODOPT08	YES	NBOD OXYGEN DEMAND	IN MG/L
MODOPT09	NO	PHOSPHORUS	
MODOPT10	NO	CHLOROPHYLL A	
MODOPT11	NO	MACROPHYTES	
MODOPT12	NO	COLIFORM	
MODOPT13	NO	NONCONSERVATIVE MATERIAL = NBOD	IN MG/L
ENDATA02			

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

PROGRAM	KL MINIMUM	=	0.70000 meters/day
PROGRAM	MAXIMUM ITERATION LIMIT	=	200.00000
PROGRAM	HYDRAULIC CALCULATION METHOD	=	2.00000 (widths and depths)
PROGRAM	TIDE HEIGHT	=	0.00000 meters
PROGRAM	TIDAL PERIOD	=	25.00000 hours
PROGRAM	EFFECTIVE BOD DUE TO ALGAE	=	0.01000 mg/L BOD per ug/L chl a
PROGRAM	ALGAE OXYGEN PRODUCTION RATE	=	0.00000 mg O/ug chl a/day
PROGRAM	INHIBITION CONTROL VALUE	=	3.00000 (inhibit all rates but SOD)
PROGRAM	OCEAN EXCHANGE RATIO	=	0.00000
PROGRAM	SETTLING RATE UNITS	=	2.00000 (values entered as per day)
ENDATA03			

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE RATE CODE THETA VALUE

ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA06

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH	END REACH	ELEM LENGTH	REACH LENGTH	ELEMS PER RCH	BEGIN ELEM	END ELEM
				km	km	km	km		NUM	NUM

REACH ID	1	BT	BT01 & BT-02	22.03	TO	18.63	0.3400	3.40	10	1	10
REACH ID	2	BT	BT02 & BT-03	18.63	TO	14.39	0.2120	4.24	20	11	30
REACH ID	3	BT	BT03 TO GLASS SHOP WEIR	14.39	TO	12.04	0.2350	2.35	10	31	40
REACH ID	4	BT	GLASS SHOP WEIR TO COTEAU WEIR	12.04	TO	9.41	0.2630	2.63	10	41	50
REACH ID	5	BT	COTEAU WEIR TO SONIC WEIR	9.41	TO	6.93	0.2480	2.48	10	51	60

ENDATA08

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
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Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

HYDR-1	1	BT	0.000	0.000	16.460	0.000	0.000	0.400	0.00000	0.030
HYDR-1	2	BT	0.000	0.000	17.680	0.000	0.000	0.370	0.00000	0.030
HYDR-1	3	BT	0.000	0.000	17.680	0.000	0.000	0.360	0.00000	0.030
HYDR-1	4	BT	0.000	0.000	16.460	0.000	0.000	0.490	0.00000	0.030
HYDR-1	5	BT	0.000	0.000	17.680	0.000	0.000	0.950	0.00000	0.030
ENDATA09										

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"		
HYDR		1	BT	0.00	0.000	0.830	0.000	1.000		
HYDR		2	BT	0.00	0.000	0.830	0.000	1.000		
HYDR		3	BT	0.00	0.000	0.830	0.000	1.000		
HYDR		4	BT	0.00	0.000	0.830	0.000	1.000		
HYDR		5	BT	0.00	0.000	0.830	0.000	1.000		
ENDATA10										

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD	TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL		1	BT	20.83	0.20	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL		2	BT	20.83	0.22	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		3	BT	20.83	0.22	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		4	BT	20.83	0.20	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		5	BT	20.83	0.19	5.00	0.00	0.00	0.00	0.00	0.00
ENDATA11											

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m ² /d	BOD DECAY per day	BOD SETT m/d	ANAER BOD2 DECAY per day	BOD CONV TO SOD	BOD2 DECAY per day	BOD2 CONV TO SOD	ANAER BOD2 DECAY per day	
COEF-1	1	BT	15 LOUISIANA	0.000	0.000	0.000	0.670	0.230	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	2	BT	15 LOUISIANA	0.000	0.000	0.000	0.620	0.310	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	3	BT	15 LOUISIANA	0.000	0.000	0.000	0.560	0.270	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	4	BT	15 LOUISIANA	0.000	0.000	0.000	0.310	0.300	0.050	0.000	0.000	0.040	0.050	0.000	0.000
COEF-1	5	BT	15 LOUISIANA	0.000	0.000	0.000	0.660	0.250	0.050	0.000	0.000	0.030	0.050	0.000	0.000

ENDATA12

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD	NBOD	ORGN CONV	NH3	NH3	PHOS	DENIT
			DECA	SETT	TO NH3 SRCE	DECA	SRCE	SRCE	RATE
COEF-2	1	BT	0.110	0.025	0.000	0.000	0.000	0.000	0.000
COEF-2	2	BT	0.170	0.025	0.000	0.000	0.000	0.000	0.000
COEF-2	3	BT	0.060	0.025	0.000	0.000	0.000	0.000	0.000
COEF-2	4	BT	0.100	0.025	0.000	0.000	0.000	0.000	0.000
COEF-2	5	BT	0.100	0.025	0.000	0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI	ALGAE:	ALGAE	ALG CONV	ALGAE	ALGAE	MACRO	MACRO
			DEPTH	CHL A	SETT	TO SOD	GROW	RESP	GROW	RESP

ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM	NCM	NCM	NCM CONV
			DIE-OFF	DECAY	SETT	TO SOD

ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	BT	0.00000	0.01896	20.83	0.22	17.10	429.80	0.00558	0.00000
INCR-1	2	BT	0.00000	0.02364	20.83	0.22	16.40	430.80	0.00558	0.00000
INCR-1	3	BT	0.00000	0.01310	20.83	0.19	12.80	381.20	0.00557	0.00000
INCR-1	4	BT	-0.02098	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00798
INCR-1	5	BT	-0.01331	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00537

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD	NBOD	BOD#2	
INCR-2	1	BT	2.00	0.91	0.60	0.00	0.00
INCR-2	2	BT	2.00	0.80	0.68	0.00	0.00
INCR-2	3	BT	2.00	0.78	0.28	0.00	0.00
INCR-2	4	BT	0.00	0.00	0.00	0.00	0.00
INCR-2	5	BT	0.00	0.00	0.00	0.00	0.00
ENDATA17							

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM	
INCR-3	1	BT	0.00	0.00	0.00	0.00	
INCR-3	2	BT	0.00	0.00	0.00	0.00	
INCR-3	3	BT	0.00	0.00	0.00	0.00	
INCR-3	4	BT	0.00	0.00	0.00	0.00	
INCR-3	5	BT	0.00	0.00	0.00	0.00	
ENDATA18							

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT	1	BT	4.11	0.49	0.00	0.00	0.00	1.78
NONPOINT	2	BT	9.11	2.07	0.00	0.00	0.00	2.89
NONPOINT	3	BT	4.89	0.00	0.00	0.00	0.00	0.78
NONPOINT	4	BT	12.00	2.22	0.00	0.00	0.00	3.78
NONPOINT	5	BT	5.33	0.33	0.00	0.00	0.00	2.18
ENDATA19								

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m³/s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L	
HDWTR-1	1	BT01	0	0.02831	1.000	20.83	0.20	16.200	452.390	0.00
ENDATA20										

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	BOD#2 mg/L		
HDWTR-2	1	BT01	8.05	2.70	1.14	0.00	0.00	2.76
ENDATA21								

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
HDWTR-3	1	BT01	0.00	10.00	0.00	0.00

ENDATA22

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME
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ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m ³ /s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
WSTLD-1	14	17.99	Schriever School	0.00137	0.04829	0.031	30.00	0.00	0.000	0.000

ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	% NITRIF	BOD#2 mg/L
						mg/L	mg/L	
WSTLD-2	14	Schriever School	2.00	69.00	0.00	64.50	0.00	0.00

ENDATA25

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
WSTLD-3	14	Schriever School	0.00	0.00	0.00	53.13

ENDATA26

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 20.830 deg C
LOWER BC	SALINITY	= 0.180 ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 11.700 MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 359.600 MG/L
LOWER BC	DISSOLVED OXYGEN	= 5.000 mg/L
LOWER BC	BOD1	= 2.850 mg/L
LOWER BC	BOD2	= 3.440 mg/L
LOWER BC	PHOSPHORUS	= 0.000 mg/L
LOWER BC	CHLOROPHYLL A	= 0.000 µg/L
LOWER BC	COLIFORM	= 0.000 #/100 mL
LOWER BC	NBOD	= 1.710 mg/L

ENDATA27

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
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DAM DATA 41 WEIR #1 Glass 1 0.650 0.000 0.200
 DAM DATA 51 WEIR #2 Coteau 1 0.650 0.100 0.320
 ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
-----------	-----------	-------	-------	-------	-------	-------	-------	-------	-------

ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
 NUMBER OF REACHES IN PLOT 1 = 5
 PLOT RCH 1 2 3 4 5
 ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

OVERLAY 1 UpBTProjOvrlay.txt
 ENDATA31

.....NO ERRORS DETECTED IN INPUT DATA
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 4 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED
GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

CONDENSED CAPSULE SUMMARY FOR BT01

DIST km	FLOW m ³ /s	TEMP deg C	SALN ppt	DO mg/L	EBOD1 mg/L	EBOD2 mg/L	ORGN mg/L	NH3 μg/L	CHLA 1/da	REAER	BOD1	BOD1	BOD2	BOD2	NH3
										RATE 1/da	DECA 1/da	SETT 1/da	DECA 1/da	SETT 1/da	DECA 1/da
HDWTR	0.02831	20.83	0.20	8.05	2.70	2.76	1.14	0.00	10.00						
21.69	0.03021	20.83	0.20	7.63	2.21	2.54	1.01	0.00	9.00	1.85	0.24	0.05	0.03	0.05	0.00
21.35	0.03210	20.83	0.20	7.52	1.86	2.35	0.90	0.00	8.00	1.86	0.24	0.05	0.03	0.05	0.00
21.01	0.03400	20.83	0.21	7.50	1.60	2.20	0.81	0.00	7.00	1.87	0.24	0.05	0.03	0.05	0.00
20.67	0.03589	20.83	0.21	7.52	1.41	2.07	0.74	0.00	6.00	1.89	0.24	0.05	0.03	0.05	0.00
20.33	0.03779	20.83	0.21	7.54	1.26	1.96	0.69	0.00	5.00	1.90	0.24	0.05	0.03	0.05	0.00
19.99	0.03969	20.83	0.21	7.57	1.15	1.87	0.64	0.00	4.00	1.91	0.24	0.05	0.03	0.05	0.00
19.65	0.04158	20.83	0.21	7.59	1.06	1.79	0.60	0.00	3.00	1.92	0.24	0.05	0.03	0.05	0.00
19.31	0.04348	20.83	0.22	7.61	0.99	1.71	0.56	0.00	2.00	1.93	0.24	0.05	0.03	0.05	0.00
18.97	0.04537	20.83	0.22	7.62	0.93	1.65	0.54	0.00	1.00	1.94	0.24	0.05	0.03	0.05	0.00
18.63	0.04727	20.83	0.22	7.64	0.88	1.60	0.51	0.00	0.00	1.95	0.24	0.05	0.03	0.05	0.00
18.42	0.04845	20.83	0.22	7.67	0.88	1.58	0.51	0.00	0.00	2.12	0.32	0.05	0.03	0.05	0.00
18.21	0.04963	20.83	0.22	7.68	0.88	1.56	0.50	0.00	0.00	2.12	0.32	0.05	0.03	0.05	0.00
17.99	0.05082	20.83	0.22	7.69	0.87	1.54	0.50	0.00	0.00	2.13	0.32	0.05	0.03	0.05	0.00

17.78	0.05337	20.83	0.22	7.47	2.44	1.48	2.04	0.00	0.00	2.14	0.32	0.05	0.03	0.05	0.00	0.65
17.57	0.05455	20.83	0.22	7.45	2.26	1.47	1.92	0.00	0.00	2.15	0.32	0.05	0.03	0.05	0.00	0.65
17.36	0.05573	20.83	0.22	7.45	2.09	1.45	1.81	0.00	0.00	2.16	0.32	0.05	0.03	0.05	0.00	0.65
17.15	0.05691	20.83	0.22	7.46	1.95	1.44	1.71	0.00	0.00	2.17	0.32	0.05	0.03	0.05	0.00	0.65
16.93	0.05809	20.83	0.22	7.48	1.83	1.43	1.62	0.00	0.00	2.17	0.32	0.05	0.03	0.05	0.00	0.65
16.72	0.05928	20.83	0.22	7.50	1.73	1.42	1.54	0.00	0.00	2.18	0.32	0.05	0.03	0.05	0.00	0.65
16.51	0.06046	20.83	0.22	7.52	1.63	1.41	1.47	0.00	0.00	2.19	0.32	0.05	0.03	0.05	0.00	0.65
16.30	0.06164	20.83	0.22	7.55	1.55	1.40	1.40	0.00	0.00	2.19	0.32	0.05	0.03	0.05	0.00	0.65
16.09	0.06282	20.83	0.22	7.57	1.48	1.39	1.33	0.00	0.00	2.20	0.32	0.05	0.03	0.05	0.00	0.65
15.87	0.06400	20.83	0.22	7.59	1.42	1.38	1.28	0.00	0.00	2.21	0.32	0.05	0.03	0.05	0.00	0.65
15.66	0.06519	20.83	0.22	7.60	1.36	1.38	1.22	0.00	0.00	2.22	0.32	0.05	0.03	0.05	0.00	0.65
15.45	0.06637	20.83	0.22	7.62	1.31	1.37	1.18	0.00	0.00	2.22	0.32	0.05	0.03	0.05	0.00	0.65
15.24	0.06755	20.83	0.22	7.64	1.27	1.36	1.13	0.00	0.00	2.23	0.32	0.05	0.03	0.05	0.00	0.65
15.03	0.06873	20.83	0.22	7.65	1.23	1.35	1.09	0.00	0.00	2.24	0.32	0.05	0.03	0.05	0.00	0.65
14.81	0.06991	20.83	0.22	7.66	1.20	1.35	1.05	0.00	0.00	2.24	0.32	0.05	0.03	0.05	0.00	0.65
14.60	0.07110	20.83	0.22	7.67	1.17	1.34	1.02	0.00	0.00	2.25	0.32	0.05	0.03	0.05	0.00	0.65
14.39	0.07228	20.83	0.22	7.69	1.14	1.34	0.98	0.00	0.00	2.26	0.32	0.05	0.03	0.05	0.00	0.65
14.16	0.07359	20.83	0.22	7.75	1.12	1.31	0.95	0.00	0.00	2.34	0.28	0.05	0.03	0.05	0.00	0.59
13.92	0.07490	20.83	0.22	7.80	1.11	1.29	0.92	0.00	0.00	2.35	0.28	0.05	0.03	0.05	0.00	0.59
13.69	0.07621	20.83	0.21	7.83	1.09	1.27	0.89	0.00	0.00	2.36	0.28	0.05	0.03	0.05	0.00	0.59
13.45	0.07752	20.83	0.21	7.85	1.08	1.26	0.86	0.00	0.00	2.37	0.28	0.05	0.03	0.05	0.00	0.59
13.22	0.07883	20.83	0.21	7.86	1.07	1.24	0.84	0.00	0.00	2.37	0.28	0.05	0.03	0.05	0.00	0.59
12.98	0.08014	20.83	0.21	7.87	1.06	1.22	0.81	0.00	0.00	2.38	0.28	0.05	0.03	0.05	0.00	0.59
12.75	0.08145	20.83	0.21	7.88	1.05	1.21	0.79	0.00	0.00	2.39	0.28	0.05	0.03	0.05	0.00	0.59
12.51	0.08276	20.83	0.20	7.89	1.04	1.19	0.77	0.00	0.00	2.40	0.28	0.05	0.03	0.05	0.00	0.59
12.28	0.08407	20.83	0.20	7.90	1.04	1.18	0.75	0.00	0.00	2.41	0.28	0.05	0.03	0.05	0.00	0.59
12.04	0.08538	20.83	0.20	7.90	1.03	1.16	0.73	0.00	0.00	2.42	0.28	0.05	0.03	0.05	0.00	0.59
11.78	0.08328	20.83	0.20	8.02	1.08	1.18	0.73	0.00	0.00	1.68	0.31	0.05	0.04	0.05	0.00	0.33
11.51	0.08118	20.83	0.20	8.10	1.13	1.20	0.73	0.00	0.00	1.68	0.31	0.05	0.04	0.05	0.00	0.33
11.25	0.07908	20.83	0.20	8.15	1.17	1.22	0.74	0.00	0.00	1.67	0.31	0.05	0.04	0.05	0.00	0.33
10.99	0.07699	20.83	0.20	8.17	1.21	1.24	0.74	0.00	0.00	1.66	0.31	0.05	0.04	0.05	0.00	0.33
10.72	0.07489	20.83	0.20	8.19	1.24	1.26	0.74	0.00	0.00	1.65	0.31	0.05	0.04	0.05	0.00	0.33
10.46	0.07279	20.83	0.19	8.20	1.28	1.28	0.75	0.00	0.00	1.65	0.31	0.05	0.04	0.05	0.00	0.33
10.20	0.07069	20.83	0.19	8.20	1.31	1.30	0.75	0.00	0.00	1.64	0.31	0.05	0.04	0.05	0.00	0.33
9.94	0.06859	20.83	0.19	8.19	1.34	1.32	0.75	0.00	0.00	1.63	0.31	0.05	0.04	0.05	0.00	0.33
9.67	0.06650	20.83	0.19	8.19	1.36	1.34	0.75	0.00	0.00	1.62	0.31	0.05	0.04	0.05	0.00	0.33
9.41	0.06440	20.83	0.19	8.18	1.39	1.36	0.76	0.00	0.00	1.61	0.31	0.05	0.04	0.05	0.00	0.33
9.16	0.06307	20.83	0.19	7.91	1.20	1.32	0.70	0.00	0.00	0.77	0.26	0.05	0.03	0.05	0.00	0.70
8.91	0.06174	20.83	0.19	7.76	1.05	1.28	0.64	0.00	0.00	0.77	0.26	0.05	0.03	0.05	0.00	0.70
8.67	0.06040	20.83	0.19	7.67	0.93	1.24	0.59	0.00	0.00	0.77	0.26	0.05	0.03	0.05	0.00	0.70
8.42	0.05907	20.83	0.19	7.64	0.82	1.20	0.54	0.00	0.00	0.76	0.26	0.05	0.03	0.05	0.00	0.70
8.17	0.05774	20.83	0.19	7.63	0.74	1.17	0.49	0.00	0.00	0.76	0.26	0.05	0.03	0.05	0.00	0.70
7.92	0.05641	20.83	0.18	7.63	0.67	1.13	0.45	0.00	0.00	0.76	0.26	0.05	0.03	0.05	0.00	0.70
7.67	0.05508	20.83	0.18	7.64	0.62	1.10	0.41	0.00	0.00	0.76	0.26	0.05	0.03	0.05	0.00	0.70
7.43	0.05375	20.83	0.18	7.66	0.57	1.07	0.38	0.00	0.00	0.76	0.26	0.05	0.03	0.05	0.00	0.70
7.18	0.05242	20.83	0.18	7.67	0.54	1.04	0.34	0.00	0.00	0.76	0.26	0.05	0.03	0.05	0.00	0.70
6.93	0.05109	20.83	0.18	7.69	0.51	1.01	0.31	0.00	0.00	0.76	0.26	0.05	0.03	0.05	0.00	0.70

FINAL REPORT BT01
 RE

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
1	HDWTR	0.02831	20.83	0.20	16.20	452.39	8.05	2.60	2.76	2.70	2.76	1.14	0.00	0.00	0.00	10.00	0.00	0.00
EACH	INCR	0.00190	20.83	0.22	17.10	429.80	2.00	0.91	0.99			0.60	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s		
1	22.03	21.69	0.03021	0.0	0.00459	0.86	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.005		
2	21.69	21.35	0.03210	0.0	0.00488	0.81	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.005		
3	21.35	21.01	0.03400	0.0	0.00516	0.76	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.005		
4	21.01	20.67	0.03589	0.0	0.00545	0.72	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.005		
5	20.67	20.33	0.03779	0.0	0.00574	0.69	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.006		
6	20.33	19.99	0.03969	0.0	0.00603	0.65	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.006		
7	19.99	19.65	0.04158	0.0	0.00632	0.62	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.006		
8	19.65	19.31	0.04348	0.0	0.00660	0.60	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.007		
9	19.31	18.97	0.04537	0.0	0.00689	0.57	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.007		
10	18.97	18.63	0.04727	0.0	0.00718	0.55	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.007		
TOT						6.83			22385.60	55963.99							
AVG						0.0058			0.40	16.46							
CUM						6.83					6.58						

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST mg/L	SAT D.O. mg/L	REAER RATE 1/d ^a	BOD#1 DECAY 1/d ^a	BOD#1 SETT 1/d ^a	ABOD#1 DECAY 1/d ^a	BOD#2 DECAY 1/d ^a	BOD#2 SETT 1/d ^a	ABOD#2 DECAY 1/d ^a	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d ^a	ORGN SETT 1/d ^a	NH3 DECAY 1/d ^a	NH3 SRCE *	DENIT RATE 1/d ^a	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d ^a	NCM DECAY 1/d ^a	NCM SETT 1/d ^a		
1	21.690	8.93	1.85	0.24	0.05	0.00	0.03	0.05	0.00	0.71	0.71	0.71	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	21.350	8.93	1.86	0.24	0.05	0.00	0.03	0.05	0.00	0.71	0.71	0.71	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	21.010	8.93	1.87	0.24	0.05	0.00	0.03	0.05	0.00	0.71	0.71	0.71	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	20.670	8.93	1.89	0.24	0.05	0.00	0.03	0.05	0.00	0.71	0.71	0.71	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	20.330	8.93	1.90	0.24	0.05	0.00	0.03	0.05	0.00	0.71	0.71	0.71	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	19.990	8.93	1.91	0.24	0.05	0.00	0.03	0.05	0.00	0.71	0.71	0.71	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	19.650	8.93	1.92	0.24	0.05	0.00	0.03	0.05	0.00	0.71	0.71	0.71	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8	19.310	8.93	1.93	0.24	0.05	0.00	0.03	0.05	0.00	0.71	0.71	0.71	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	18.970	8.93	1.94	0.24	0.05	0.00	0.03	0.05	0.00	0.71	0.71	0.71	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10	18.630	8.93	1.95	0.24	0.05	0.00	0.03	0.05	0.00	0.71	0.71	0.71	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE	1.87	0.23	0.05	0.00	0.03	0.05	0.00	0.67			0.11	0.03	0.00	0.00	0.00			0.00	0.00	0.00			

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
1	21.690	20.83	0.20	16.26	450.97	7.63	2.12	2.54	2.21	2.54	1.01	0.00	0.00	0.00	0.00	9.00	0.00	0.	0.00
2	21.350	20.83	0.20	16.31	449.72	7.52	1.78	2.35	1.86	2.35	0.90	0.00	0.00	0.00	0.00	8.00	0.00	0.	0.00
3	21.010	20.83	0.21	16.35	448.61	7.50	1.53	2.20	1.60	2.20	0.81	0.00	0.00	0.00	0.00	7.00	0.00	0.	0.00
4	20.670	20.83	0.21	16.39	447.62	7.52	1.35	2.07	1.41	2.07	0.74	0.00	0.00	0.00	0.00	6.00	0.00	0.	0.00
5	20.330	20.83	0.21	16.43	446.72	7.54	1.21	1.96	1.26	1.96	0.69	0.00	0.00	0.00	0.00	5.00	0.00	0.	0.00
6	19.990	20.83	0.21	16.46	445.91	7.57	1.11	1.87	1.15	1.87	0.64	0.00	0.00	0.00	0.00	4.00	0.00	0.	0.00
7	19.650	20.83	0.21	16.49	445.18	7.59	1.03	1.79	1.06	1.79	0.60	0.00	0.00	0.00	0.00	3.00	0.00	0.	0.00
8	19.310	20.83	0.22	16.51	444.51	7.61	0.97	1.71	0.99	1.71	0.56	0.00	0.00	0.00	0.00	2.00	0.00	0.	0.00
9	18.970	20.83	0.22	16.54	443.89	7.62	0.92	1.65	0.93	1.65	0.54	0.00	0.00	0.00	0.00	1.00	0.00	0.	0.00
10	18.630	20.83	0.22	16.56	443.33	7.64	0.88	1.60	0.88	1.60	0.51	0.00	0.00	0.00	0.00	0.00	0.	0.00	

FINAL REPORT BT01
 REACH NO. 2 BT02 & BT-03

UPPER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW deg C	TEMP ppt	SALN	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
11	UPR RCH	0.04727	20.83	0.22	16.56	443.33	7.64	0.88	1.60	0.88	1.60	0.51	0.00	0.00	0.00	0.00	0.00	0.00
EACH	INCR	0.00118	20.83	0.22	16.40	430.80	2.00	0.80	1.06			0.68	0.00	0.00	0.00	0.00	0.00	0.00
14	WSTLD	0.00137	30.00	0.00	0.00	0.00	2.00	69.00	0.00	69.00	0.00	64.50	0.00	0.00	0.00	0.00	53.13	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
11	18.63	18.42	0.04845	0.0	0.00741	0.33	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.007
12	18.42	18.21	0.04963	0.0	0.00759	0.32	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.008
13	18.21	17.99	0.05082	0.0	0.00777	0.32	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.008
14	17.99	17.78	0.05337	2.6	0.00816	0.30	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.008
15	17.78	17.57	0.05455	2.5	0.00834	0.29	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.008
16	17.57	17.36	0.05573	2.5	0.00852	0.29	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.009
17	17.36	17.15	0.05691	2.4	0.00870	0.28	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.009
18	17.15	16.93	0.05809	2.4	0.00888	0.28	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.009
19	16.93	16.72	0.05928	2.3	0.00906	0.27	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.009
20	16.72	16.51	0.06046	2.3	0.00924	0.27	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.009
21	16.51	16.30	0.06164	2.2	0.00942	0.26	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.009
22	16.30	16.09	0.06282	2.2	0.00960	0.26	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.010
23	16.09	15.87	0.06400	2.1	0.00978	0.25	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.010
24	15.87	15.66	0.06519	2.1	0.00996	0.25	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.010
25	15.66	15.45	0.06637	2.1	0.01015	0.24	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.010
26	15.45	15.24	0.06755	2.0	0.01033	0.24	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.010
27	15.24	15.03	0.06873	2.0	0.01051	0.23	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.011
28	15.03	14.81	0.06991	2.0	0.01069	0.23	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.011
29	14.81	14.60	0.07110	1.9	0.01087	0.23	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.011

30	14.60	14.39	0.07228	1.9	0.01105	0.22	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.011
TOT						5.35			27736.38	74963.20					
AVG					0.0092		0.37	17.68			6.54				
CUM						12.18									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da	
11	18.418	8.93	2.12	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12	18.206	8.93	2.12	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13	17.994	8.93	2.13	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14	17.782	8.93	2.14	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15	17.570	8.93	2.15	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
16	17.358	8.93	2.16	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
17	17.146	8.93	2.17	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
18	16.934	8.93	2.17	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
19	16.722	8.93	2.18	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
20	16.510	8.93	2.19	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
21	16.298	8.93	2.19	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
22	16.086	8.93	2.20	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
23	15.874	8.93	2.21	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
24	15.662	8.93	2.22	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
25	15.450	8.93	2.22	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
26	15.238	8.93	2.23	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
27	15.026	8.93	2.24	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
28	14.814	8.93	2.24	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
29	14.602	8.93	2.25	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
30	14.390	8.93	2.26	0.32	0.05	0.00	0.03	0.05	0.00	0.65	0.65	0.65	0.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
AVG	20	DEG C	RATE	2.15	0.31	0.05	0.00	0.03	0.05	0.00	0.62			0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
11	18.418	20.83	0.22	16.56	443.02	7.67	0.88	1.58	0.88	1.58	0.51	0.00	0.00	0.00	0.00	0.00	0.	0.00	
12	18.206	20.83	0.22	16.55	442.73	7.68	0.88	1.56	0.88	1.56	0.50	0.00	0.00	0.00	0.00	0.00	0.	0.00	
13	17.994	20.83	0.22	16.55	442.45	7.69	0.87	1.54	0.87	1.54	0.50	0.00	0.00	0.00	0.00	0.00	0.	0.00	
14	17.782	20.83	0.22	16.12	430.86	7.47	2.44	1.48	2.44	1.48	2.04	0.00	0.00	0.00	0.00	0.00	0.	0.00	
15	17.570	20.83	0.22	16.13	430.86	7.45	2.26	1.47	2.26	1.47	1.92	0.00	0.00	0.00	0.00	0.00	0.	0.00	
16	17.358	20.83	0.22	16.13	430.86	7.45	2.09	1.45	2.09	1.45	1.81	0.00	0.00	0.00	0.00	0.00	0.	0.00	
17	17.146	20.83	0.22	16.14	430.85	7.46	1.95	1.44	1.95	1.44	1.71	0.00	0.00	0.00	0.00	0.00	0.	0.00	
18	16.934	20.83	0.22	16.14	430.85	7.48	1.83	1.43	1.83	1.43	1.62	0.00	0.00	0.00	0.00	0.00	0.	0.00	
19	16.722	20.83	0.22	16.15	430.85	7.50	1.73	1.42	1.73	1.42	1.54	0.00	0.00	0.00	0.00	0.00	0.	0.00	
20	16.510	20.83	0.22	16.15	430.85	7.52	1.63	1.41	1.63	1.41	1.47	0.00	0.00	0.00	0.00	0.00	0.	0.00	

21	16.298	20.83	0.22	16.16	430.85	7.55	1.55	1.40	1.55	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00	
22	16.086	20.83	0.22	16.16	430.85	7.57	1.48	1.39	1.48	1.39	1.33	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
23	15.874	20.83	0.22	16.17	430.85	7.59	1.42	1.38	1.42	1.38	1.28	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
24	15.662	20.83	0.22	16.17	430.85	7.60	1.36	1.38	1.36	1.38	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
25	15.450	20.83	0.22	16.18	430.85	7.62	1.31	1.37	1.31	1.37	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
26	15.238	20.83	0.22	16.18	430.85	7.64	1.27	1.36	1.27	1.36	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
27	15.026	20.83	0.22	16.18	430.85	7.65	1.23	1.35	1.23	1.35	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
28	14.814	20.83	0.22	16.19	430.84	7.66	1.20	1.35	1.20	1.35	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
29	14.602	20.83	0.22	16.19	430.84	7.67	1.17	1.34	1.17	1.34	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
30	14.390	20.83	0.22	16.20	430.84	7.69	1.14	1.34	1.14	1.34	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 3 BT03 TO GLASS SHOP WEIR
 UPPER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
31 EACH	UPR RCH INCR	0.07228	20.83	0.22	16.20	430.84	7.69	1.14	1.34	1.14	1.34	0.98	0.00	0.00	0.00	0.00	0.00	0.00
		0.000131	20.83	0.19	12.80	381.20	2.00	0.78	0.86			0.28	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s		
31	14.39	14.16	0.07359	1.9	0.01156	0.24	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.012		
32	14.16	13.92	0.07490	1.8	0.01177	0.23	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.012		
33	13.92	13.69	0.07621	1.8	0.01197	0.23	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.012		
34	13.69	13.45	0.07752	1.8	0.01218	0.22	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.012		
35	13.45	13.22	0.07883	1.7	0.01238	0.22	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.012		
36	13.22	12.98	0.08014	1.7	0.01259	0.22	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.013		
37	12.98	12.75	0.08145	1.7	0.01280	0.21	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.013		
38	12.75	12.51	0.08276	1.7	0.01300	0.21	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.013		
39	12.51	12.28	0.08407	1.6	0.01321	0.21	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.013		
40	12.28	12.04	0.08538	1.6	0.01341	0.20	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.013		
TOT						2.18			14957.28	41548.00							
AVG						0.0125			0.36	17.68							
CUM									14.36								

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE mg/L	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT SRCE 1/d	PO4 RATE 1/d	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d
31	14.155	8.93	2.34	0.28	0.05	0.00	0.03	0.05	0.00	0.59	0.59	0.59	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

32	13.920	8.93	2.35	0.28	0.05	0.00	0.03	0.05	0.00	0.59	0.59	0.59	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
33	13.685	8.93	2.36	0.28	0.05	0.00	0.03	0.05	0.00	0.59	0.59	0.59	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
34	13.450	8.93	2.37	0.28	0.05	0.00	0.03	0.05	0.00	0.59	0.59	0.59	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
35	13.215	8.93	2.37	0.28	0.05	0.00	0.03	0.05	0.00	0.59	0.59	0.59	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
36	12.980	8.93	2.38	0.28	0.05	0.00	0.03	0.05	0.00	0.59	0.59	0.59	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
37	12.745	8.93	2.39	0.28	0.05	0.00	0.03	0.05	0.00	0.59	0.59	0.59	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
38	12.510	8.93	2.40	0.28	0.05	0.00	0.03	0.05	0.00	0.59	0.59	0.59	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
39	12.275	8.93	2.41	0.28	0.05	0.00	0.03	0.05	0.00	0.59	0.59	0.59	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
40	12.040	8.93	2.42	0.28	0.05	0.00	0.03	0.05	0.00	0.59	0.59	0.59	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE		2.34	0.27	0.05	0.00	0.03	0.05	0.00	0.56			0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
31	14.155	20.83	0.22	16.13	429.96	7.75	1.12	1.31	1.12	1.31	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
32	13.920	20.83	0.22	16.08	429.11	7.80	1.11	1.29	1.11	1.29	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
33	13.685	20.83	0.21	16.02	428.28	7.83	1.09	1.27	1.09	1.27	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
34	13.450	20.83	0.21	15.97	427.49	7.85	1.08	1.26	1.08	1.26	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
35	13.215	20.83	0.21	15.91	426.72	7.86	1.07	1.24	1.07	1.24	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
36	12.980	20.83	0.21	15.86	425.97	7.87	1.06	1.22	1.06	1.22	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
37	12.745	20.83	0.21	15.81	425.25	7.88	1.05	1.21	1.05	1.21	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
38	12.510	20.83	0.20	15.77	424.56	7.89	1.04	1.19	1.04	1.19	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
39	12.275	20.83	0.20	15.72	423.88	7.90	1.04	1.18	1.04	1.18	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
40	12.040	20.83	0.20	15.67	423.23	7.90	1.03	1.16	1.03	1.16	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 4 GLASS SHOP WEIR TO COTEAU WEIR

UPPER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW deg C	TEMP ppt	SALN	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
41	UPR RCH	0.08538	20.83	0.20	15.67	423.23	7.90	1.03	1.16	1.03	1.16	0.73	0.00	0.00	0.00	0.00	0.00	0.00
41	DAM	WEIR #1 Glass ADDS	0.00	MG/L	DISSOLVED OXYGEN GIVING	7.90	MG/L	D.O. FOR THE UPR RCH INPUT										
EACH	INCR	-0.00210																

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPNSN m ² /s	MEAN VELO m/s
41	12.04	11.78	0.08328	1.6	0.01033	0.29	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.010
42	11.78	11.51	0.08118	1.6	0.01007	0.30	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.010

43	11.51	11.25	0.07908	1.6	0.00981	0.31	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.010
44	11.25	10.99	0.07699	1.6	0.00955	0.32	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.010
45	10.99	10.72	0.07489	1.6	0.00929	0.33	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.009
46	10.72	10.46	0.07279	1.6	0.00902	0.34	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.009
47	10.46	10.20	0.07069	1.6	0.00876	0.35	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.009
48	10.20	9.94	0.06859	1.6	0.00850	0.36	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.009
49	9.94	9.67	0.06650	1.6	0.00824	0.37	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.008
50	9.67	9.41	0.06440	1.6	0.00798	0.38	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.008
TOT						3.35			21212.00	43289.80					
AVG					0.0091		0.49	16.46			8.07				
CUM						17.71									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da		
41	11.777	8.93	1.68	0.31	0.05	0.00	0.04	0.05	0.00	0.33	0.33	0.33	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
42	11.514	8.93	1.68	0.31	0.05	0.00	0.04	0.05	0.00	0.33	0.33	0.33	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
43	11.251	8.93	1.67	0.31	0.05	0.00	0.04	0.05	0.00	0.33	0.33	0.33	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
44	10.988	8.93	1.66	0.31	0.05	0.00	0.04	0.05	0.00	0.33	0.33	0.33	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
45	10.725	8.93	1.65	0.31	0.05	0.00	0.04	0.05	0.00	0.33	0.33	0.33	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
46	10.462	8.93	1.65	0.31	0.05	0.00	0.04	0.05	0.00	0.33	0.33	0.33	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
47	10.199	8.93	1.64	0.31	0.05	0.00	0.04	0.05	0.00	0.33	0.33	0.33	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
48	9.936	8.93	1.63	0.31	0.05	0.00	0.04	0.05	0.00	0.33	0.33	0.33	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
49	9.673	8.93	1.62	0.31	0.05	0.00	0.04	0.05	0.00	0.33	0.33	0.33	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
50	9.410	8.93	1.61	0.31	0.05	0.00	0.04	0.05	0.00	0.33	0.33	0.33	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE	1.62	0.30	0.05	0.00	0.04	0.05	0.00	0.31				0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
41	11.777	20.83	0.20	15.67	423.23	8.02	1.08	1.18	1.08	1.18	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
42	11.514	20.83	0.20	15.67	423.23	8.10	1.13	1.20	1.13	1.20	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
43	11.251	20.83	0.20	15.67	423.23	8.15	1.17	1.22	1.17	1.22	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
44	10.988	20.83	0.20	15.67	423.23	8.17	1.21	1.24	1.21	1.24	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
45	10.725	20.83	0.20	15.67	423.23	8.19	1.24	1.26	1.24	1.26	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
46	10.462	20.83	0.19	15.67	423.23	8.20	1.28	1.28	1.28	1.28	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
47	10.199	20.83	0.19	15.67	423.23	8.20	1.31	1.30	1.31	1.30	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
48	9.936	20.83	0.19	15.67	423.23	8.19	1.34	1.32	1.34	1.32	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
49	9.673	20.83	0.19	15.67	423.23	8.19	1.36	1.34	1.36	1.34	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
50	9.410	20.83	0.19	15.67	423.23	8.18	1.39	1.36	1.39	1.36	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00

REACH NO. 5 COTEAU WEIR TO SONIC WEIR

UPSTREAM OF THE WEIR # 3(SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
51	UPR RCH	0.06440	20.83	0.19	15.67	423.23	8.18	1.39	1.36	1.39	1.36	0.76	0.00	0.00	0.00	0.00	0.00	
51 EACH	DAM INCR		WEIR #2 Coteau ADDS -0.00133		MG/L DISSOLVED OXYGEN	GIVING 8.19 MG/L	D.O. FOR THE UPR RCH INPUT											

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPNSN m²/s	MEAN VELO m/s
51	9.41	9.16	0.06307	1.6	0.00375	0.76	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.004
52	9.16	8.91	0.06174	1.6	0.00368	0.78	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.004
53	8.91	8.67	0.06040	1.6	0.00360	0.80	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.004
54	8.67	8.42	0.05907	1.6	0.00352	0.82	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.004
55	8.42	8.17	0.05774	1.6	0.00344	0.83	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.003
56	8.17	7.92	0.05641	1.6	0.00336	0.85	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.003
57	7.92	7.67	0.05508	1.6	0.00328	0.88	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.003
58	7.67	7.43	0.05375	1.6	0.00320	0.90	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.003
59	7.43	7.18	0.05242	1.6	0.00312	0.92	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.003
60	7.18	6.93	0.05109	1.6	0.00304	0.94	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.003
TOT						8.48			41654.07	43846.40					
AVG						0.0034			0.95	17.68					
CUM						26.19					16.80				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
51	9.162	8.93	0.77	0.26	0.05	0.00	0.03	0.05	0.00	0.70	0.70	0.70	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
52	8.914	8.93	0.77	0.26	0.05	0.00	0.03	0.05	0.00	0.70	0.70	0.70	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
53	8.666	8.93	0.77	0.26	0.05	0.00	0.03	0.05	0.00	0.70	0.70	0.70	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
54	8.418	8.93	0.76	0.26	0.05	0.00	0.03	0.05	0.00	0.70	0.70	0.70	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
55	8.170	8.93	0.76	0.26	0.05	0.00	0.03	0.05	0.00	0.70	0.70	0.70	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
56	7.922	8.93	0.76	0.26	0.05	0.00	0.03	0.05	0.00	0.70	0.70	0.70	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
57	7.674	8.93	0.76	0.26	0.05	0.00	0.03	0.05	0.00	0.70	0.70	0.70	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
58	7.426	8.93	0.76	0.26	0.05	0.00	0.03	0.05	0.00	0.70	0.70	0.70	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
59	7.178	8.93	0.76	0.26	0.05	0.00	0.03	0.05	0.00	0.70	0.70	0.70	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
60	6.930	8.93	0.76	0.26	0.05	0.00	0.03	0.05	0.00	0.70	0.70	0.70	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C	RATE	0.75	0.25	0.05	0.00	0.03	0.05	0.00	0.66			0.10	0.03	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
51	9.162	20.83	0.19	15.67	423.23	7.91	1.20	1.32	1.20	1.32	0.70	0.00	0.00	0.00	0.00	0.00	0.	0.00	
52	8.914	20.83	0.19	15.67	423.23	7.76	1.05	1.28	1.05	1.28	0.64	0.00	0.00	0.00	0.00	0.00	0.	0.00	
53	8.666	20.83	0.19	15.67	423.23	7.67	0.93	1.24	0.93	1.24	0.59	0.00	0.00	0.00	0.00	0.00	0.	0.00	
54	8.418	20.83	0.19	15.67	423.23	7.64	0.82	1.20	0.82	1.20	0.54	0.00	0.00	0.00	0.00	0.00	0.	0.00	
55	8.170	20.83	0.19	15.67	423.23	7.63	0.74	1.17	0.74	1.17	0.49	0.00	0.00	0.00	0.00	0.00	0.	0.00	
56	7.922	20.83	0.18	15.67	423.23	7.63	0.67	1.13	0.67	1.13	0.45	0.00	0.00	0.00	0.00	0.00	0.	0.00	
57	7.674	20.83	0.18	15.67	423.23	7.64	0.62	1.10	0.62	1.10	0.41	0.00	0.00	0.00	0.00	0.00	0.	0.00	
58	7.426	20.83	0.18	15.67	423.23	7.66	0.57	1.07	0.57	1.07	0.38	0.00	0.00	0.00	0.00	0.00	0.	0.00	
59	7.178	20.83	0.18	15.67	423.23	7.67	0.54	1.04	0.54	1.04	0.34	0.00	0.00	0.00	0.00	0.00	0.	0.00	
60	6.930	20.83	0.18	15.67	423.23	7.69	0.51	1.01	0.51	1.01	0.31	0.00	0.00	0.00	0.00	0.00	0.	0.00	

UPPER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR	AVERAGE VELO cfs	Avg DEPTH fps	Avg WIDTH ft
1	BT01 & BT-02	22.03	18.63	3.40	6.83	0.04727	0.00577	0.400	16.46	1.669	0.019	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	5.35	0.07228	0.00917	0.370	17.68	2.552	0.030	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	2.18	0.08538	0.01246	0.360	17.68	3.015	0.041	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	3.35	0.06440	0.00909	0.490	16.46	2.274	0.030	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	8.48	0.05109	0.00338	0.950	17.68	1.804	0.011	3.117	58.01

.....EXECUTION COMPLETED

**APPENDIX E4 – WINTER PROJECTION WATER QUALITY INPUT
JUSTIFICATIONS (Upper Terrebonne Model)**

WATER QUALITY INPUT DATA AND JUSTIFICATION

BAYOU TERREBONNE SUBSEGMENT 120301

WINTER PROJECTION (Upper Terrebonne Model)

Schriever School Treatment Level:

CBOD5 = 30 mg/L

NHN-3 = 15 mg/L

DO = 2.0 mg/L

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)			
DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
OCEAN EXCHANGE RATIO	0		No tidal impacts
TIDE HEIGHT	0.0	meters	No tidal impacts
MAXIMUM ITERATION LIMIT	200		Adjusted for convergence
EFFECTIVE BOD DUE TO ALGAE	0.01	mg/L BOD /ug chl a/ day	Calibration
ALGAE OXYGEN PRODUCTION	0	mg O / ug chl a / day	Turned off for simulation
HYDRAULIC CALCULATION METHOD	2		Widths and depths

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)						
DATA TYPE 8 - REACH IDENTIFICATION DATA						
Reach	ID	Name	Upstream River Kilometer	Downstream River Kilometer	Element Length, km	Data Source
1	BT	Upper Bayou Terrebonne, Reach1, BT01 to BT02	22.03	18.63	0.3400	GIS and survey data
2	BT	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	18.63	14.39	0.2120	Same as reach 1
3	BT	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	14.39	12.04	0.2350	Same as reach 1
4	BT	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	12.04	9.41	0.2630	Same as reach 1
5	BT	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	9.41	6.93	0.2480	Same as reach 1

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)													
DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS													
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	0	0	16.46	Site BT02	0	0	0.40	Site BT02	0	Best professional judgement and knowledge of the area - value used in all reaches	0.03	Environmental Engineering, P.E. Examination Guide and Handbook by C. King, p. 113
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	0	0	17.68	Site BT03	0	0	0.37	Site BT03	0	Same as Reach 1	0.03	Same as Reach 1
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	0	0	17.68	Site BT04	0	0	0.36	Site BT04	0	Same as Reach 1	0.03	Same as Reach 1
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	0	0	16.46	Site BT05a	0	0	0.49	Site BT05a	0	Same as Reach 1	0.03	Same as Reach 1
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	0	0	17.68	Site BT06	0	0	0.95	Site BT06	0	Same as Reach 1	0.03	Same as Reach 1

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)							
DATA TYPE 11 - INITIAL CONDITIONS							
Reach	Name	Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chl a	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	20.83	0.20	5.0	Temp set to winter 90 th percentile temperature for WQN site 110; DO set to criteria; salinity retained from BT01 continuous monitor data	10.00	Assumed that chlorophyll a would be reduced but not eliminated with reduction in nutrients in reach 1
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	20.83	0.22	5.0	Temp amd DO source same as reach 1; salinity retained from BT02 insitu data	0.00	Assumed that chl a would be reduced to insignificant levels with reduction in nutrients
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	20.83	0.22	5.0	Temp amd DO source same as reach 1; salinity retained from BT03 insitu data	0.00	Same as reach 2
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	20.83	0.20	5.0	Temp amd DO source same as reach 1; salinity retained from BT05 continuous monitor data	0.00	Same as reach 2
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	20.83	0.19	5.0	Temp amd DO source same as reach 1; salinity retained from BT05a insitu data	0.00	Same as reach 2

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)																			
DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS																			
REACH	NAME	K ₂ OPT	K ₂ "A"	K ₂ "B"	K ₂ "C"	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Anearobic BOD1 Dec Rate (1/day)	Aerobic BOD2 Dec Rate (1/day)	Anearobic BOD2 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	BOD2 SETT RATE (1/day)	Data Source	SETTLED BOD1 CONV TO SOD	SETTLED BOD2 CONV TO SOD	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	15	0.0	0	0	LA Equation	0.67	SOD based on 80% reduction in nonpoint load	0.23		0.03		Site BT02	0.05	0.05	Calibration	0	0	BOD not converted to SOD
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	15	0.0	0	0	Same as reach 1	0.62	Same as reach 1	0.31		0.03		Site BT03	0.05	0.05	Same as reach 1	0	0	Same as reach 1
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	15	0.0	0	0	Same as reach 1	0.56	Same as reach 1	0.27		0.03		Site BT04	0.05	0.05	Same as reach 1	0	0	Same as reach 1
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	15	0.0	0	0	Same as reach 1	0.31	Same as reach 1	0.30		0.04		Site BT05a	0.05	0.05	Same as reach 1	0	0	Same as reach 1
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	15	0.0	0	0	Same as reach 1	0.66	Same as reach 1	0.25		0.03		Site BT06	0.05	0.05	Same as reach 1	0	0	Same as reach 1

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)				
DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS				
Reach	Name	NBOD decay rate, 1/day	NBOD settling rate, 1/day	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	0.11	0.025	Site BT02; Calibration
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	0.17	0.025	Site BT03; Calibration
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	0.06	0.025	NBO Site BT04; Calibration
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	0.10	0.025	Site BT05a; Calibration
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	0.10	0.025	Site BT06; Calibration

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)									
DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Ouflow, cms	Incr. Inflow, cms	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I	Cons. Mat II	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02		0.01896	Retained from calibration model	20.83	0.22	17.1	429.8	Winter 90 th percentile temperature for WQN site 110; WQ data based on insitu data and lab data for Site BT02
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03		0.02364	Retained from calibration model	20.83	0.22	16.4	430.8	Temp source same as reach 1; WQ data based on insitu data and lab data for Site BT03
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir-		0.01310	Retained from calibration model	20.83	0.19	12.8	381.2	Temp source same as reach 1; WQ data based on insitu data and lab data for Site BT04
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	-0.02098		Retained from calibration model					WQ data not needed for outflow

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)									
DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Ouflow, cms	Incr. Inflow, cms	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I	Cons. Mat II	Data Source
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	-0.01331		Retained from calibration model					Same as reach 4

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)									
DATA TYPES 17 - INCREMENTAL DATA FOR DO, BOD, AND NITROGEN									
Reach	Reach Name	DO, mg/l	UCBOD 1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH ³ -N, mg/L	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	2.0	0.91		0.60			0.99	DO value representative of bank flow and inflow from small ditches; BOD based on 80% reduction of nonpoint loads
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	2.0	0.80		0.68			1.06	DO source same as reach 1; BOD based on 80% reduction of nonpoint loads
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	2.0	0.78		0.28			0.86	DO source same as reach 1; BOD based on 80% reduction of nonpoint loads
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir								WQ data not needed for outflow
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic								Same as reach 4

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)									
DATA TYPES 17 - INCREMENTAL DATA FOR DO, BOD, AND NITROGEN									
Reach	Reach Name	DO, mg/l	UCBOD 1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH ³ -N, mg/L	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
	Weir (#3)								

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)						
DATA TYPE 19 - NONPOINT SOURCES						
Reach	Reach Name	Length of Reach, km	UCBOD1 (kg/day)	NBOD (kg/day)	UCBOD2 (kg/day)	Data Source
1	Upper Bayou Terrebonne, Reach1, BT01 to BT02	3.40	4.11	0.49	1.78	Based on 80% reduction in nonpoint load
2	Upper Bayou Terrebonne, Reach 2, BT02 to BT03	4.24	9.11	2.07	2.89	Same as reach 1
3	Upper Bayou Terrebonne, Reach 3, BT03 to Glass Shop Weir	2.35	4.89	0.0	0.78	Same as reach 1
4	Upper Bayou Terrebonne, Reach 4, Glass Shop Weir to Coteau Weir	2.63	12.00	2.22	3.78	Same as reach 1
5	Upper Bayou Terrebonne, Reach 5, Coteau Weir to Sonic Weir (#3)	2.48	5.33	0.33	2.18	Same as reach 1

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)								
DATA TYPES 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES								
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms	Temp, deg C	Sal, ppt	Conservative Material I (Chlorides)	Conservative Material II (Conductivity)	Data Source
Reach 1 Headwaters of Upper Bayou Terrebonne upstream of weir # 3	1	Not used	0.02831	20.83	0.2	16.2	452.39	Flow based on LTP recommendations; Temp set to winter 90 th percentile for WQN site 110; 24-hr average value for site BT01 used for salinity, conductivity; chlorides data was obtained from the lab data for Site BT01

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)						
DATA TYPES 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN						
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	UCBOD2, mg/l	Data Source	
Reach 1 Headwaters of Upper Bayou Terrebonne upstream of weir # 3	8.05	2.70	1.14	2.76	Headwater DO value set to winter 90 th percentile for WQN site 110; UCBOD1, UCBOD2, and NBOD values based on 80% reduction of nonpoint load	

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)		
DATA TYPES 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES		
Headwater Name	Chlorophyll a, ug/L	Date Source
Reach 1 Headwaters of Upper Bayou Terrebonne upstream of weir # 3	10.0	Assumed that chlorophyll a would be reduced but not eliminated with reduction in nutrients

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)							
DATA TYPES 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES							
Wasteload / Withdrawal Name	EL #	Flow, cms	Temperature , deg C	Salinity	Conservative Material I	Conservative Material II	Data Source
Schriever School	14	0.0013675	30.0				Modeled discharge based on expected facility discharge with a 20 percent MOS

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)										
DATA TYPES 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN										
Wasteload / Withdrawal Name	EL #	DO, mg/l	UCBOD1, mg/l	BOD decayed, percent	UNBOD, mg/l	NH ₃ -N, mg/L	NH ₃ -N nitrified, percent	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
Schriever School	14	2.0	69.0		64.5					Recommended BOD value based on the permitted BOD limits; facility load has minimal impact; post aeration is not recommended

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)						
DATA TYPES 26 - WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES						
Wasteload / Withdrawal Name	EL #	Phosphorus, mg/L	Chlorophyll-A, ug/L	Coliform, #/100 mL	Nonconservative Material	Data Source
Schriever School	14					These parameters were not included in the projection models

Bayou Terrebonne 120301 Winter Justifications (Upper Terrebonne Model)			
DATA TYPES 27 - LOWER BOUNDARY CONDITIONS			
Parameter	Value	Units	Data Source
TEMPERATURE	20.83	degrees Celsius	Winter 90 th percentile temperature for WQN site 110
SALINITY	0.18	Ppt	Site BT06 insitu data
CONSERVATIVE MATERIAL I	11.7	mg/L	Site BT06 lab data
CONSERVATIVE MATERIAL II	359.60	mg/L	Site BT06 insitu data
DISSOLVED OXYGEN	5.0	mg/L	DO set to criteria
BIOCHEMICAL OXYGEN DEMAND 1	2.85	mg/L	Site BT06 BOD data
BIOCHEMICAL OXYGEN DEMAND 2	3.44	mg/L	Site BT06 BOD data
NBOD	1.71	mg/L	Site BT06 BOD data
CHLOROPHYLL A	0	ug/L	Assumed that chlorophyll a would be reduced to insignificant levels with reduction in nutrients

Bayou Terrebonne 120301 Winter Justifications (UpperTerrebonne Model)

DATA TYPE 28 – DAM DATA

Dam Name	EL #	Dam Reaeration Option	Water Quality Factor, "a"	Weir Dam aeration coefficient, "b"	Static head loss over dam, "H"	Data Source
Weir # 1 (Bayou Terrebonne model upstream of weir # 3)	41	1	0.65	0.0	0.2	Survey data from weir # 1 and recommended dam aeration from the LAQUAL User's Manual
Weir # 2 (Bayou Terrebonne model upstream of weir # 3)	51	1	0.65	0.1	0.32	Survey data from weir # 2 and recommended dam aeration from the LAQUAL User's Manual

**APPENDIX F – PROJECTION MODEL INPUT AND OUTPUT DATA SETS
(Lower Terrebonne Model)**

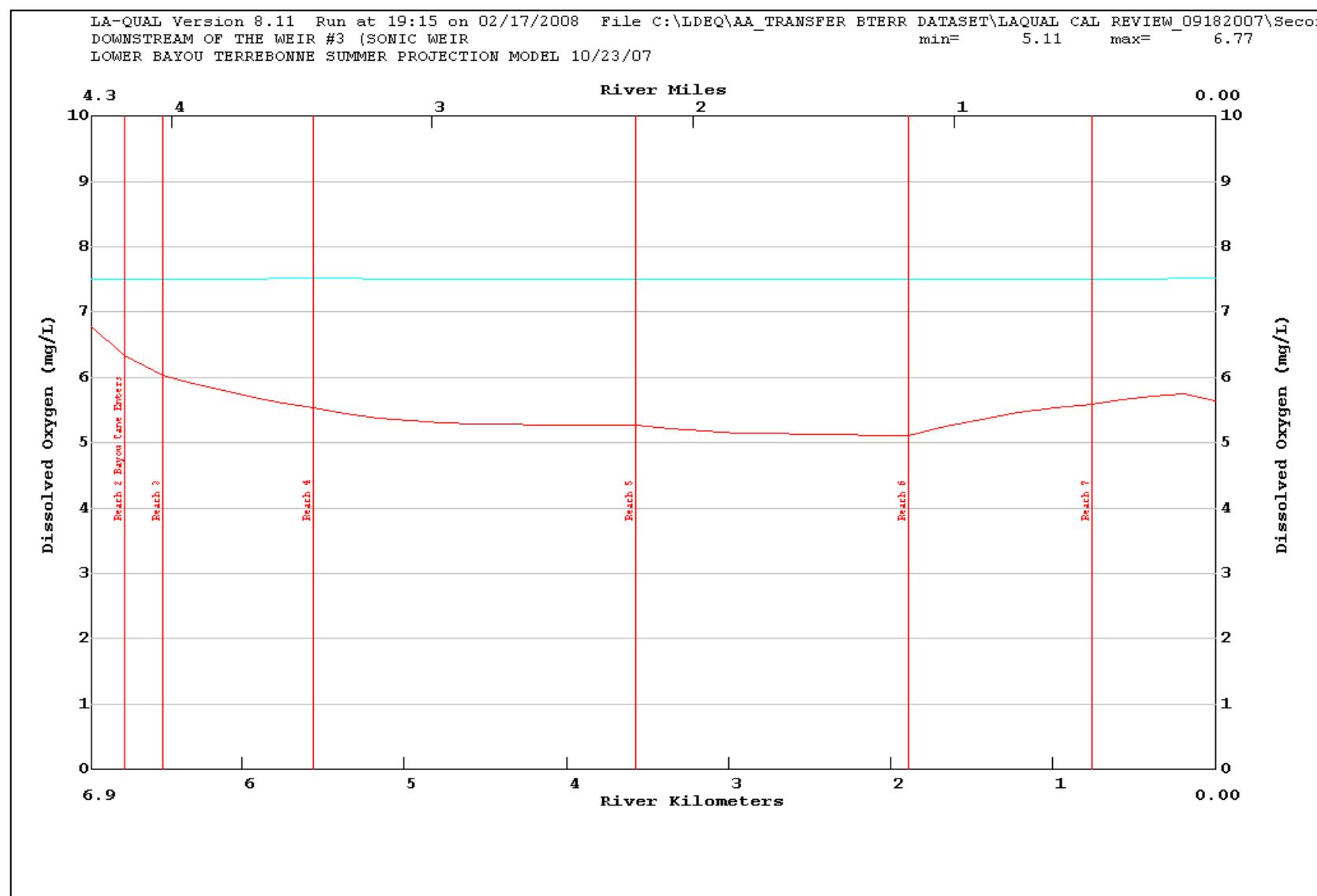
APPENDIX F1 – SUMMER PROJECTION MODEL GRAPHS, INPUT FILE, AND
OUTPUT FILE

APPENDIX F2 – SUMMER PROJECTION WATER QUALITY INPUT
JUSTIFICATIONS

APPENDIX F3 – WINTER PROJECTION MODEL GRAPH, INPUT FILE, AND
OUTPUT FILE

APPENDIX F4 – WINTER PROJECTION WATER QUALITY INPUT
JUSTIFICATIONS

**APPENDIX F1 – SUMMER PROJECTION MODEL GRAPHS, INPUT FILE, AND
OUTPUT FILE
(LOWER TERREBONNE MODEL)**



LOWER TERREBONNE INPUT FILE – SUMMER PROJECTION

```
TITLE01      LOWER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/23/07
TITLE02      DOWNSTREAM OF THE WEIR #3 (SONIC WEIR
! Modeled CBOD1, CBOD2, and NBOD; Used constant widths and depths; estimated
tidal flow
CONTROL YES METRIC UNITS
! Summer Projection
! 70 % NP red; no PS; MOS = 10%
ENDATA01
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES           IN MG/L
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY        IN MG/L
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1
MODOPT07 YES BOD2
MODOPT08 YES NBOD OXYGEN DEMAND                         IN MG/L
MODOPT09 NO PHOSPHORUS
MODOPT10 NO CHLOROPHYLL A
MODOPT11 NO MACROPHYTES
MODOPT12 NO COLIFORM
MODOPT13 NO NONCONSERVATIVE MATERIAL = NBOD               IN MG/L
ENDATA02
PROGRAM KL MINIMUM          =      0.7
PROGRAM MAXIMUM ITERATION LIMIT =    200.
PROGRAM HYDRAULIC CALCULATION METHOD =      2.
PROGRAM TIDE HEIGHT          =     0.13
PROGRAM TIDAL PERIOD         =     25.0
PROGRAM DISPERSION           =      2
PROGRAM EFFECTIVE BOD DUE TO ALGAE =     0.01
PROGRAM ALGAE OXYGEN PRODUCTION RATE =      0
PROGRAM INHIBITION CONTROL VALUE =      3
PROGRAM OCEAN EXCHANGE RATIO   =     1.0
PROGRAM SETTLING RATE UNITS   =      2
ENDATA03
ENDATA04
ENDATA05
ENDATA06
ENDATA07
! Reach data entered on 9/19/04; Added a single-element headwater reach above
Weir #3 10/27/04
! Removed the single element weir on 10/10/2007. Started model below the weir
REACH ID 1 BT Weir #3 to Bayou Cane       6.93    6.72    0.2100
REACH ID 2 BC Bayou Cane to BT-08          6.72    6.49    0.2300
REACH ID 3 BT BT-08 to BT-09              6.49    5.56    0.1860
REACH ID 4 BT BT-09 to BT-10              5.56    3.57    0.1990
REACH ID 5 BT BT-10 to BT-11              3.57    1.89    0.2100
REACH ID 6 BT BT-11 to BT-12              1.89    0.76    0.2260
REACH ID 7 BT BT-12 to ICWW                0.76    0.00    0.1900
ENDATA08
! Data entered 9/22/04
!
! Datatype 9 revised 9/24/2007; width and depth constants determined by the
```

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

```

! downstream site in each reach
HYDR-1    1      0      0  14.32      0      0  0.76      0  0.03
HYDR-1    2      0      0  14.32      0      0  0.87      0  0.03
HYDR-1    3      0      0  14.32      0      0  0.71      0  0.03
HYDR-1    4      0      0  14.63      0      0  0.88      0  0.03
HYDR-1    5      0      0  18.90      0      0  1.66      0  0.03
HYDR-1    6      0      0  22.86      0      0  1.37      0  0.03
HYDR-1    7      0      0  22.86      0      0  1.37      0  0.03
ENDATA09

! This area is tidal;
! SET TRANGE values based on survey sites;
! set "b", "c", "d" to 0.833, 0, 1 based on LDEQ standard practice;
! calibrated "a" to measured dispersion values
!000000001111111122222222333333334444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!          RCH TRANGE      "a"      "b"      "c"      "d"
HYDR-2    1  0.69      18.00    0.833      0.00      1.00
HYDR-2    2  0.66      18.00    0.833      0.00      1.00
HYDR-2    3  0.62      18.00    0.833      0.00      1.00
HYDR-2    4  0.70      18.00    0.833      0.00      1.00
HYDR-2    5  0.77      18.00    0.833      0.00      1.00
HYDR-2    6  0.92      18.00    0.833      0.00      1.00
HYDR-2    7  0.92      18.00    0.833      0.00      1.00
ENDATA10

! Data entered on 9/22/04
! Initial conditions temp, sal, DO and chl a revised 10/2/07; revised 10/15/07
! to match site located at the upstream end of each reach
! Modified Temp, DO, and chlor a for summer projection on 10/18/07
!00000000111111112222222233333333444444445555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!          TEMP      SAL      DO                      CHL A      MACRO
INITIAL   1  30.31    0.20     5.00     0.00    0.000    0.00    0.0    0.0
INITIAL   2  30.31    0.20     5.00     0.00    0.000    0.00    0.0    0.0
INITIAL   3  30.31    0.17     5.00     0.00    0.000    0.00    0.0    0.0
INITIAL   4  30.31    0.11     5.00     0.00    0.000    0.00    0.0    0.0
INITIAL   5  30.31    0.21     5.00     0.00    0.000    0.00    0.0    0.0
INITIAL   6  30.31    0.16     5.00     0.00    0.000    0.00    0.0    0.0
INITIAL   7  30.31    0.20     5.00     0.00    0.000    0.00    0.0    0.0
ENDATA11

```

```
! Initial data entered 9/22/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream
! end of each reach
!000000001111111122222222333333334444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      REAERATION          SOD BOD1DEC SETT CON2SOD ANEARO BOD2DEC SETT CON2SOD ANEARO
COEF-1    1    19   0.0   0.0    0.0   0.67   0.31   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    2    19   0.0   0.0    0.0   0.67   0.24   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    3    19   0.0   0.0    0.0   0.73   0.22   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    4    19   0.0   0.0    0.0   0.73   0.20   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    5    19   0.0   0.0    0.0   0.27   0.41   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    6    19   0.0   0.0    0.0   0.03   0.31   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    7    19   0.0   0.0    0.0   0.00   0.31   0.05   0.0   0.0   0.03   0.05   0.0   0.0
ENDATA12
!
      Data entered 9/22/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream
! end of each reach
!00000000111111112222222233333333444444445555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      NBODDEC NBODSETT
COEF-2    1    0.09   0.025   0.0   0.0   0.0   0.0
COEF-2    2    0.12   0.025   0.0   0.0   0.0   0.0
COEF-2    3    0.09   0.025   0.0   0.0   0.0   0.0
COEF-2    4    0.12   0.025   0.0   0.0   0.0   0.0
COEF-2    5    0.17   0.025   0.0   0.0   0.0   0.0
COEF-2    6    0.16   0.025   0.0   0.0   0.0   0.0
COEF-2    7    0.10   0.025   0.0   0.0   0.0   0.0
ENDATA13
ENDATA14
ENDATA15
!
      Incremental data input started on 10/2/2007; finito in 10/5/07
! Flow based on TOT and distance for Run 4 dye data
! WQ data for each reach set to the value obtained at the site
!     at the downstream end of each reach
! Temp, sal, cond, and DO the continuous monitor data used if available
!     then insitu data used
! Salinity - calibrated to cont mon and insitu data
! Chlorides - calibrated to Lab data used
```

```
! Conductivity - calibrated to cont mon and insitu data
! BOD - Lab data used
! Data indicated residual influence of Bayou Cane, therefore WQ data for
! Reach 2 obtained from BC01
! modified Temp for summer projection on 10/18/07
!000000001111111122222223333333444444445555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!      R#    OUTFLOW   INFLOW     TEMP      SAL CONSERVI CONSERV2
INCR-1    1          0.00926    30.31     0.20     11.6    373.13
INCR-1    2          0.01015    30.31     0.10     10.5    275.89
INCR-1    3       -0.02758
INCR-1    4          0.03339    30.31     0.21     50.8    362.93
INCR-1    5          0.22       30.31     0.16     12.8    334.30
INCR-1    6       -0.00210
INCR-1    7       -0.00141
ENDATA16
! Modified DO for summer projection on 10/18/07
!00000000111111112222222333333344444444555555556666666677777778
!234567890123456789012345678901234567890123456789012345678901234567890
!      R#      DO      BOD1      NBOD      NH3      NO2      BOD2
INCR-2    1      5.00     1.54     0.69
INCR-2    2      5.00     1.27     0.61
INCR-2    3
INCR-2    4      5.00     1.24     0.89
INCR-2    5      5.00     1.21     0.85
INCR-2    6
INCR-2    7
ENDATA17
ENDATA18
!00000000111111112222222333333344444444555555556666666677777778
!234567890123456789012345678901234567890123456789012345678901234567890
!      BOD1      NBOD          DO      BOD2
NONPOINT  1      0.67     0.43
NONPOINT  2      0.17     0.63
NONPOINT  3      8.33     0.53
NONPOINT  4      5.67     3.33
NONPOINT  5     33.33     4.67
NONPOINT  6     29.00    14.00
```

NONPOINT 7 20.00 0.67 0.00
ENDATA19
! Data entered on 9/22/04; revised on 10/10/07; Headwater Q based on dye study,
! cross sectional data and linear interpolation; Headwater WQ based on site BT07
! HW DO set equal to BT07min + 1 = 0.6 + 1 = 1.60 mg/L
! Modified Temp for summer projection 10/18/07;
! Flow based on Max Forbes tidal flow calculations
!0000000011111111222222233333334444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
HDWTR-1 1 BT01 0 0.10538 30.31 0.200 11.6 373.13
ENDATA20
! Modified DO for summer projection on 10/18/07
!0000000011111111222222233333334444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
! DO BOD1 NBOD BOD2
HDWTR-2 1 6.77 1.54 0.69 0.0 0.0 1.36
ENDATA21
! Modified Chl a for summer projection on 10/18/07
!0000000011111111222222233333334444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
! CHL A
HDWTR-3 1 0.0 0.0 0.0 0.0
ENDATA22
ENDATA23
ENDATA24
ENDATA25
ENDATA26
! LBC data entered 9/19/04
! Modified Temp, DO, Chl a for summer projection 10/18/07
LOWER BC TEMPERATURE = 30.31
LOWER BC SALINITY = 0.10
LOWER BC CONSERVATIVE MATERIAL I = 18.5
LOWER BC CONSERVATIVE MATERIAL II = 270.97
LOWER BC DISSOLVED OXYGEN = 5.00
LOWER BC BOD1 = 4.21
LOWER BC BOD2 = 3.45
LOWER BC PHOSPHORUS = 0.00
LOWER BC CHLOROPHYLL A = 0.0

```
LOWER BC COLIFORM          =    0.00
LOWER BC NBOD              =   2.73
ENDATA27
ENDATA28
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 7
PLOT RCH 1  2  3  4  5  6  7
ENDATA30
OVERLAY 1 LowBTProjOvrlay.txt
ENDATA31
```

LOWER TERREBONNE OUTPUT FILE – SUMMER PROJECTION

LA-QUAL Version 8.11

Louisiana Department of Environmental Quality

Input file is C:\LDEQ\AA_TRANSFER_BTERR_DATASET\LAQUAL_CAL REVIEW_09182007\Second Revision 2008 Projections\South of Weir 3\LowBTerrSum_Tidalrev2_7R_incrQ 70red10MOS.txt
Output produced at 12:36 on 02/23/2008

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE CONTROL TITLES

TITLE01 LOWER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/23/07
TITLE02 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR
CONTROL YES METRIC UNITS
ENDATA01

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE MODEL OPTION

MODOPT01	NO	TEMPERATURE	
MODOPT02	NO	SALINITY	
MODOPT03	YES	CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MODOPT04	YES	CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN MG/L
MODOPT05	YES	DISSOLVED OXYGEN	
MODOPT06	YES	BOD1	
MODOPT07	YES	BOD2	
MODOPT08	YES	NBOD OXYGEN DEMAND	IN MG/L
MODOPT09	NO	PHOSPHORUS	
MODOPT10	NO	CHLOROPHYLL A	
MODOPT11	NO	MACROPHYTES	
MODOPT12	NO	COLIFORM	
MODOPT13	NO	NONCONSERVATIVE MATERIAL = NBOD	IN MG/L
ENDATA02			

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

```
PROGRAM      KL MINIMUM          =      0.70000 meters/day
PROGRAM      MAXIMUM ITERATION LIMIT =      200.00000
PROGRAM      HYDRAULIC CALCULATION METHOD =      2.00000 (widths and depths)
PROGRAM      TIDE HEIGHT          =      0.13000 meters
PROGRAM      TIDAL PERIOD        =      25.00000 hours
PROGRAM      DISPERSION          =      2.00000 (values entered as a function of
D,Q,Vtidal)
PROGRAM      EFFECTIVE BOD DUE TO ALGAE =      0.01000 mg/L BOD per ug/L chl a
PROGRAM      ALGAE OXYGEN PRODUCTION RATE =      0.00000 mg O/ug chl a/day
PROGRAM      INHIBITION CONTROL VALUE =      3.00000 (inhibit all rates but SOD)
PROGRAM      OCEAN EXCHANGE RATIO   =      1.00000
PROGRAM      SETTLING RATE UNITS   =      2.00000 (values entered as per day)
ENDATA03
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\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE RATE CODE THETA VALUE

ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA06

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	BT	Weir #3 to Bayou Cane	6.93	TO	6.72	0.2100	0.21	1	1
REACH ID	2	BC	Bayou Cane to BT-08	6.72	TO	6.49	0.2300	0.23	1	2
REACH ID	3	BT	BT-08 to BT-09	6.49	TO	5.56	0.1860	0.93	5	3
REACH ID	4	BT	BT-09 to BT-10	5.56	TO	3.57	0.1990	1.99	10	8
REACH ID	5	BT	BT-10 to BT-11	3.57	TO	1.89	0.2100	1.68	8	18
REACH ID	6	BT	BT-11 to BT-12	1.89	TO	0.76	0.2260	1.13	5	26
REACH ID	7	BT	BT-12 to ICWW	0.76	TO	0.00	0.1900	0.76	4	31

ENDATA08

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1		1	BT	0.000	0.000	14.320	0.000	0.000	0.760	0.00000	0.030
HYDR-1		2	BC	0.000	0.000	14.320	0.000	0.000	0.870	0.00000	0.030
HYDR-1		3	BT	0.000	0.000	14.320	0.000	0.000	0.710	0.00000	0.030
HYDR-1		4	BT	0.000	0.000	14.630	0.000	0.000	0.880	0.00000	0.030
HYDR-1		5	BT	0.000	0.000	18.900	0.000	0.000	1.660	0.00000	0.030
HYDR-1		6	BT	0.000	0.000	22.860	0.000	0.000	1.370	0.00000	0.030
HYDR-1		7	BT	0.000	0.000	22.860	0.000	0.000	1.370	0.00000	0.030
ENDATA09											

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"			
HYDR		1	BT	0.69	18.000	0.833	0.000	1.000			
HYDR		2	BC	0.66	18.000	0.833	0.000	1.000			
HYDR		3	BT	0.62	18.000	0.833	0.000	1.000			
HYDR		4	BT	0.70	18.000	0.833	0.000	1.000			
HYDR		5	BT	0.77	18.000	0.833	0.000	1.000			
HYDR		6	BT	0.92	18.000	0.833	0.000	1.000			
HYDR		7	BT	0.92	18.000	0.833	0.000	1.000			
ENDATA10											

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD	TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL		1	BT	30.31	0.20	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		2	BC	30.31	0.20	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		3	BT	30.31	0.17	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		4	BT	30.31	0.11	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		5	BT	30.31	0.21	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		6	BT	30.31	0.16	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		7	BT	30.31	0.20	5.00	0.00	0.00	0.00	0.00	0.00
ENDATA11											

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m ² /d	BOD DECAY per day	BOD SETT m/d	CONV TO SOD	ANAER BOD2 DECAY per day	BOD2 BOD2 DECAY per day	BOD2 SETT m/d	CONV TO SOD	ANAER BOD2 DECAY per day
COEF-1	1	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.670	0.310	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	2	BC	19 OWENS <1.8 F	0.000	0.000	0.000	0.670	0.240	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	3	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.730	0.220	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	4	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.730	0.200	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	5	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.270	0.410	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	6	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.030	0.310	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	7	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.000	0.310	0.050	0.000	0.000	0.030	0.050	0.000	0.000
ENDATA12															

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD DECA	NBOD SETT	ORGN TO NH3	CONV SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE	
COEF-2	1	BT	0.090	0.025	0.000		0.000	0.000	0.000	0.000	
COEF-2	2	BC	0.120	0.025	0.000		0.000	0.000	0.000	0.000	
COEF-2	3	BT	0.090	0.025	0.000		0.000	0.000	0.000	0.000	
COEF-2	4	BT	0.120	0.025	0.000		0.000	0.000	0.000	0.000	
COEF-2	5	BT	0.170	0.025	0.000		0.000	0.000	0.000	0.000	
COEF-2	6	BT	0.160	0.025	0.000		0.000	0.000	0.000	0.000	
COEF-2	7	BT	0.100	0.025	0.000		0.000	0.000	0.000	0.000	
ENDATA13											

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING
ENDATA14											

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
ENDATA15						

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	BT	0.00000	0.00926	30.31	0.20	11.60	373.13	0.04410	0.00000
INCR-1	2	BC	0.00000	0.01015	30.31	0.10	10.50	275.89	0.04413	0.00000
INCR-1	3	BT	-0.02758	0.00000	0.00	0.00	0.00	0.00000	-0.02966	
INCR-1	4	BT	0.00000	0.03339	30.31	0.21	50.80	362.93	0.01678	0.00000
INCR-1	5	BT	0.00000	0.22000	30.31	0.16	12.80	334.30	0.13095	0.00000

INCR-1 6 BT -0.00210 0.00000 0.00 0.00 0.00 0.00 0.00000 -0.00186
 INCR-1 7 BT -0.00141 0.00000 0.00 0.00 0.00 0.00 0.00000 -0.00186
 ENDTA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD	NBOD	BOD#2		
INCR-2	1	BT	5.00	1.54	0.69	0.00	0.00	1.36
INCR-2	2	BC	5.00	1.27	0.61	0.00	0.00	1.47
INCR-2	3	BT	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	4	BT	5.00	1.24	0.89	0.00	0.00	1.40
INCR-2	5	BT	5.00	1.21	0.85	0.00	0.00	1.36
INCR-2	6	BT	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	7	BT	0.00	0.00	0.00	0.00	0.00	0.00
ENDTA17								

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM
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ENDTA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT	1	BT	0.67	0.43	0.00	0.00	0.00	0.50
NONPOINT	2	BC	0.17	0.63	0.00	0.00	0.00	0.67
NONPOINT	3	BT	8.33	0.53	0.00	0.00	0.00	4.00
NONPOINT	4	BT	5.67	3.33	0.00	0.00	0.00	1.67
NONPOINT	5	BT	33.33	4.67	0.00	0.00	0.00	6.00
NONPOINT	6	BT	29.00	14.00	0.00	0.00	0.00	5.33
NONPOINT	7	BT	20.00	0.67	0.00	0.00	0.00	0.00
ENDTA19								

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II IN MG/L	
HDWTR-1	1	BT01	0	0.10538	3.721	30.31	0.20	11.600	373.130	0.00
ENDTA20										

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	BOD#2 mg/L		
HDWTR-2	1	BT01	6.77	1.54	0.69	0.00	0.00	1.36
ENDTA21								

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
HDWTR-3	1	BT01	0.00	0.00	0.00	0.00

ENDATA22

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION	UPSTRM ELEMENT	RIVER ELEMENT	NAME KILOM
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ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKilo	NAME	FLOW m³/s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II IN MG/L
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ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	% NITRIF	BOD#2 mg/L
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ENDATA25

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
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ENDATA26

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 30.310 deg C
LOWER BC	SALINITY	= 0.100 ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 18.500 MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 270.970 IN MG/L
LOWER BC	DISSOLVED OXYGEN	= 5.000 mg/L
LOWER BC	BOD1	= 4.210 mg/L
LOWER BC	BOD2	= 3.450 mg/L
LOWER BC	PHOSPHORUS	= 0.000 mg/L
LOWER BC	CHLOROPHYLL A	= 0.000 µg/L
LOWER BC	COLIFORM	= 0.000 #/100 mL
LOWER BC	NBOD	= 2.730 mg/L

ENDATA27

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
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ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE PARAMETER COL 1 COL 2 COL 3 COL 4 COL 5 COL 6 COL 7 COL 8

ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 7
PLOT RCH 1 2 3 4 5 6 7
ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

OVERLAY 1 LowBTProjOvrlay.txt
ENDATA31

.....NO ERRORS DETECTED IN INPUT DATA
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 2 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
.....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

CONDENSED CAPSULE SUMMARY FOR BT01

DIST	FLOW	TEMP	SALN	DO	EBOD1	EBOD2	ORGN	NH3	CHLA	REAER	BOD1	BOD1	BOD2	BOD2	NH3	
km	m ³ /s	deg C	ppt	mg/L	mg/L	mg/L	mg/L	µg/L	1/da	RATE	DECA	SETT	DECA	SETT	DECA	SOD
										1/da	1/da	1/da	1/da	1/da	g/m ² /d	
HDWTR	0.10538	30.31	0.20	6.77	1.54	1.36	0.69	0.00	0.00							
6.72	0.11464	30.31	0.20	6.33	1.42	1.38	0.70	0.00	0.00	1.11	0.50	0.06	0.05	0.06	0.00	1.28
6.49	0.12479	30.31	0.17	6.03	1.27	1.40	0.70	0.00	0.00	0.97	0.39	0.06	0.05	0.06	0.00	1.28
6.30	0.11927	30.31	0.16	5.90	1.33	1.45	0.69	0.00	0.00	1.19	0.35	0.06	0.05	0.06	0.00	1.40
6.12	0.11376	30.31	0.15	5.79	1.39	1.50	0.67	0.00	0.00	1.19	0.35	0.06	0.05	0.06	0.00	1.40
5.93	0.10824	30.31	0.13	5.70	1.44	1.54	0.66	0.00	0.00	1.19	0.35	0.06	0.05	0.06	0.00	1.40
5.75	0.10273	30.31	0.12	5.61	1.49	1.59	0.65	0.00	0.00	1.19	0.35	0.06	0.05	0.06	0.00	1.40
5.56	0.09721	30.31	0.11	5.54	1.54	1.64	0.63	0.00	0.00	1.19	0.35	0.06	0.05	0.06	0.00	1.40
5.36	0.10055	30.31	0.12	5.44	1.43	1.60	0.63	0.00	0.00	0.96	0.32	0.06	0.05	0.06	0.00	1.40
5.16	0.10389	30.31	0.13	5.38	1.34	1.56	0.63	0.00	0.00	0.96	0.32	0.06	0.05	0.06	0.00	1.40
4.96	0.10723	30.31	0.14	5.33	1.27	1.53	0.63	0.00	0.00	0.96	0.32	0.06	0.05	0.06	0.00	1.40
4.76	0.11057	30.31	0.15	5.31	1.20	1.50	0.63	0.00	0.00	0.96	0.32	0.06	0.05	0.06	0.00	1.40
4.57	0.11390	30.31	0.16	5.29	1.14	1.47	0.63	0.00	0.00	0.96	0.32	0.06	0.05	0.06	0.00	1.40
4.37	0.11724	30.31	0.17	5.28	1.10	1.44	0.63	0.00	0.00	0.96	0.32	0.06	0.05	0.06	0.00	1.40
4.17	0.12058	30.31	0.18	5.28	1.06	1.42	0.63	0.00	0.00	0.96	0.32	0.06	0.05	0.06	0.00	1.40

3.97	0.12392	30.31	0.19	5.28	1.02	1.40	0.63	0.00	0.00	0.96	0.32	0.06	0.05	0.06	0.00	1.40
3.77	0.12726	30.31	0.20	5.28	0.99	1.38	0.63	0.00	0.00	0.96	0.32	0.06	0.05	0.06	0.00	1.40
3.57	0.13060	30.31	0.21	5.28	0.96	1.36	0.63	0.00	0.00	0.96	0.32	0.06	0.05	0.06	0.00	1.40
3.36	0.15810	30.31	0.20	5.21	0.97	1.34	0.61	0.00	0.00	0.51	0.66	0.06	0.05	0.06	0.00	0.52
3.15	0.18560	30.31	0.20	5.18	0.98	1.33	0.60	0.00	0.00	0.51	0.66	0.06	0.05	0.06	0.00	0.52
2.94	0.21310	30.31	0.19	5.15	0.98	1.32	0.59	0.00	0.00	0.51	0.66	0.06	0.05	0.06	0.00	0.52
2.73	0.24060	30.31	0.19	5.14	0.98	1.31	0.58	0.00	0.00	0.51	0.66	0.06	0.05	0.06	0.00	0.52
2.52	0.26810	30.31	0.18	5.13	0.98	1.31	0.58	0.00	0.00	0.51	0.66	0.06	0.05	0.06	0.00	0.52
2.31	0.29560	30.31	0.17	5.12	0.98	1.31	0.58	0.00	0.00	0.51	0.66	0.06	0.05	0.06	0.00	0.52
2.10	0.32310	30.31	0.17	5.11	0.98	1.30	0.57	0.00	0.00	0.51	0.66	0.06	0.05	0.06	0.00	0.52
1.89	0.35060	30.31	0.16	5.12	0.99	1.30	0.57	0.00	0.00	0.51	0.66	0.06	0.05	0.06	0.00	0.52
1.66	0.35018	30.31	0.17	5.25	1.04	1.30	0.62	0.00	0.00	0.62	0.50	0.06	0.05	0.06	0.00	0.06
1.44	0.34976	30.31	0.18	5.37	1.09	1.30	0.66	0.00	0.00	0.62	0.50	0.06	0.05	0.06	0.00	0.06
1.21	0.34934	30.31	0.18	5.46	1.13	1.30	0.70	0.00	0.00	0.62	0.50	0.06	0.05	0.06	0.00	0.06
0.99	0.34892	30.31	0.19	5.53	1.17	1.30	0.73	0.00	0.00	0.62	0.50	0.06	0.05	0.06	0.00	0.06
0.76	0.34850	30.31	0.20	5.59	1.20	1.30	0.76	0.00	0.00	0.62	0.50	0.06	0.05	0.06	0.00	0.06
0.57	0.34815	30.31	0.17	5.66	1.23	1.28	0.74	0.00	0.00	0.62	0.50	0.06	0.05	0.06	0.00	0.00
0.38	0.34780	30.31	0.15	5.71	1.26	1.25	0.71	0.00	0.00	0.62	0.50	0.06	0.05	0.06	0.00	0.00
0.19	0.34744	30.31	0.12	5.75	1.32	1.25	0.72	0.00	0.00	0.62	0.50	0.06	0.05	0.06	0.00	0.00
0.00	0.34709	30.31	0.10	5.64	1.74	1.56	1.00	0.00	0.00	0.62	0.50	0.06	0.05	0.06	0.00	0.00

FINAL REPORT BT01
 REACH NO. 1 Weir #3 to Bayou Cane

LOWER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/23/07
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
1 EACH	HDWTR	0.10538	30.31	0.20	11.60	373.13	6.77	1.54	1.36	1.54	1.36	0.69	0.00	0.00	0.00	0.00	0.00	0.00
	INCR	0.00926	30.31	0.20	11.60	373.13	5.00	1.54	1.36			0.69	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	6.93	6.72	0.11464	0.0	0.01053	0.23	0.76	14.32	2285.47	3007.20	10.88	269.75	0.001	0.008	0.011
TOT AVG CUM					0.0105		0.23		2285.47	3007.20		10.88			
							0.76	14.32							
							0.23								

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	ABOD#1 SETT 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	ABOD#2 SETT 1/d	BKGD * SOD	FULL SOD	CORR SOD	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SETT 1/d	DENIT SRCE 1/d	PO4 SRCE 1/d	ALG PROD *	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d

1	6.720	7.51	1.11	0.50	0.06	0.00	0.05	0.06	0.00	1.28	1.28	1.28	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	deg C	Rate				0.92	0.31	0.05	0.00	0.03	0.05	0.00	0.67		0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00
*	g/m ² /d			**	mg/L/day																		

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
1	6.720	30.31	0.20	11.60	373.09	6.33	1.42	1.38	1.42	1.38	0.70	0.00	0.00	0.00	0.00	0.00	0.	0.00	

FINAL REPORT BT01
 REACH NO. 2 Bayou Cane to BT-08 LOWER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/23/07
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW deg C	TEMP ppt	SALN	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
2 EACH	UPR RCH INCR	0.11464	30.31	0.20	11.60	373.09	6.33	1.42	1.38	1.42	1.38	0.70	0.00	0.00	0.00	0.00	0.00	0.00
		0.01015	30.31	0.10	10.50	275.89	5.00	1.27	1.47			0.61	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
2	6.72	6.49	0.12479	0.0	0.01002	0.27	0.87	14.32	2865.43	3293.60	12.46	552.34	0.001	0.016	0.010
TOT AVG CUM					0.0100	0.27			2865.43	3293.60					
						0.50	0.87	14.32			12.46				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT SRCE 1/da	PO4 SRCE 1/da	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
2	6.490	7.51	0.97	0.39	0.06	0.00	0.05	0.06	0.00	1.28	1.28	1.28	0.23	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	deg C	Rate	0.80	0.24	0.05	0.00	0.03	0.05	0.00	0.67			0.12	0.03	0.00	0.00	0.00			0.00	0.00	0.00
*	g/m ² /d			**	mg/L/day																		

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
2	6.490	30.31	0.17	11.51	365.22	6.03	1.27	1.40	1.27	1.40	0.70	0.00	0.00	0.00	0.00	0.00	0.	0.00	

FINAL REPORT BT01
 REACH NO. 3 BT-08 to BT-09 LOWER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/23/07
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
3 EACH	UPR RCH INCR	0.12479 -0.00552	30.31	0.17	11.51	365.22	6.03	1.27	1.40	1.27	1.40	0.70	0.00	0.00	0.00	0.00	0.00	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s	
3	6.49	6.30	0.11927	0.0	0.01173	0.18	0.71	14.32	1891.10	2663.52	10.17	767.02	0.002	0.023	0.012	
4	6.30	6.12	0.11376	0.0	0.01119	0.19	0.71	14.32	1891.10	2663.52	10.17	981.70	0.002	0.029	0.011	
5	6.12	5.93	0.10824	0.0	0.01065	0.20	0.71	14.32	1891.10	2663.52	10.17	1196.38	0.003	0.035	0.011	
6	5.93	5.75	0.10273	0.0	0.01010	0.21	0.71	14.32	1891.10	2663.52	10.17	1411.06	0.003	0.042	0.010	
7	5.75	5.56	0.09721	0.0	0.00956	0.23	0.71	14.32	1891.10	2663.52	10.17	1625.74	0.004	0.048	0.010	
TOT						1.02			9455.50	13317.60						
AVG						0.0106			0.71	14.32		10.17				
CUM						1.51										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	ABOD#1 SETT 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d
3	6.304	7.51	1.19	0.35	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	6.118	7.51	1.19	0.35	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	5.932	7.51	1.19	0.35	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	5.746	7.51	1.19	0.35	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	5.560	7.51	1.19	0.35	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C	RATE	0.99	0.22	0.05	0.00	0.03	0.05	0.00	0.73			0.09	0.03	0.00	0.00	0.00			0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
3	6.304	30.31	0.16	11.51	365.22	5.90	1.33	1.45	1.33	1.45	0.69	0.00	0.00	0.00	0.00	0.00	0.	0.00	
4	6.118	30.31	0.15	11.51	365.22	5.79	1.39	1.50	1.39	1.50	0.67	0.00	0.00	0.00	0.00	0.00	0.	0.00	
5	5.932	30.31	0.13	11.51	365.22	5.70	1.44	1.54	1.44	1.54	0.66	0.00	0.00	0.00	0.00	0.00	0.	0.00	
6	5.746	30.31	0.12	11.51	365.22	5.61	1.49	1.59	1.49	1.59	0.65	0.00	0.00	0.00	0.00	0.00	0.	0.00	
7	5.560	30.31	0.11	11.55	365.22	5.54	1.54	1.64	1.54	1.64	0.63	0.00	0.00	0.00	0.00	0.00	0.	0.00	

FINAL REPORT BT01
 REACH NO. 4 BT-09 to BT-10

LOWER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/23/07
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A μg/L	COLI #/100mL	NCM MG/L
8	UPR RCH	0.09721	30.31	0.11	11.55	365.22	5.54	1.54	1.64	1.54	1.64	0.63	0.00	0.00	0.00	0.00	0.00	0.00
EACH	INCR	0.000334	30.31	0.21	50.80	362.93	5.00	1.24	1.40			0.89	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW m³/s	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH days	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s		
8	5.56	5.36	0.10055	0.0	0.00781	0.29	0.88	14.63	2562.01	2911.37	12.87	1890.67	0.003	0.053	0.008		
9	5.36	5.16	0.10389	0.0	0.00807	0.29	0.88	14.63	2562.01	2911.37	12.87	2155.60	0.004	0.060	0.008		
10	5.16	4.96	0.10723	0.0	0.00833	0.28	0.88	14.63	2562.01	2911.37	12.87	2420.54	0.004	0.068	0.008		
11	4.96	4.76	0.11057	0.0	0.00859	0.27	0.88	14.63	2562.01	2911.37	12.87	2685.47	0.005	0.075	0.009		
12	4.76	4.57	0.11390	0.0	0.00885	0.26	0.88	14.63	2562.01	2911.37	12.87	2950.41	0.005	0.082	0.009		
13	4.57	4.37	0.11724	0.0	0.00911	0.25	0.88	14.63	2562.01	2911.37	12.87	3215.34	0.006	0.090	0.009		
14	4.37	4.17	0.12058	0.0	0.00937	0.25	0.88	14.63	2562.01	2911.37	12.87	3480.28	0.006	0.097	0.009		
15	4.17	3.97	0.12392	0.0	0.00963	0.24	0.88	14.63	2562.01	2911.37	12.87	3745.21	0.006	0.105	0.010		
16	3.97	3.77	0.12726	0.0	0.00988	0.23	0.88	14.63	2562.01	2911.37	12.87	4010.15	0.007	0.112	0.010		
17	3.77	3.57	0.13060	0.0	0.01014	0.23	0.88	14.63	2562.01	2911.37	12.87	4275.08	0.007	0.119	0.010		
TOT					2.58				25620.06	29113.70							
AVG					0.0089				0.88	14.63			12.87				
CUM									4.10								

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE 1/d	DENIT SRCE 1/d	PO4 SRCE 1/d	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d	
				*	*	*	*	*	*						*			*						

8	5.361	7.51	0.96	0.32	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.22	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	5.162	7.51	0.96	0.32	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.22	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10	4.963	7.51	0.96	0.32	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.22	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11	4.764	7.51	0.96	0.32	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.22	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12	4.565	7.51	0.96	0.32	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.22	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13	4.366	7.51	0.96	0.32	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.22	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14	4.167	7.51	0.96	0.32	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.22	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15	3.968	7.51	0.96	0.32	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.22	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
16	3.769	7.51	0.96	0.32	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.22	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
17	3.570	7.51	0.96	0.32	0.06	0.00	0.05	0.06	0.00	1.40	1.40	1.40	0.22	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE	0.80	0.20	0.05	0.00	0.03	0.05	0.00	0.73			0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
8	5.361	30.31	0.12	12.86	365.14	5.44	1.43	1.60	1.43	1.60	0.63	0.00	0.00	0.00	0.00	0.00	0.	0.00	
9	5.162	30.31	0.13	14.08	365.07	5.38	1.34	1.56	1.34	1.56	0.63	0.00	0.00	0.00	0.00	0.00	0.	0.00	
10	4.963	30.31	0.14	15.23	365.00	5.33	1.27	1.53	1.27	1.53	0.63	0.00	0.00	0.00	0.00	0.00	0.	0.00	
11	4.764	30.31	0.15	16.30	364.94	5.31	1.20	1.50	1.20	1.50	0.63	0.00	0.00	0.00	0.00	0.00	0.	0.00	
12	4.565	30.31	0.16	17.31	364.88	5.29	1.14	1.47	1.14	1.47	0.63	0.00	0.00	0.00	0.00	0.00	0.	0.00	
13	4.366	30.31	0.17	18.27	364.83	5.28	1.10	1.44	1.10	1.44	0.63	0.00	0.00	0.00	0.00	0.00	0.	0.00	
14	4.167	30.31	0.18	19.17	364.77	5.28	1.06	1.42	1.06	1.42	0.63	0.00	0.00	0.00	0.00	0.00	0.	0.00	
15	3.968	30.31	0.19	20.02	364.72	5.28	1.02	1.40	1.02	1.40	0.63	0.00	0.00	0.00	0.00	0.00	0.	0.00	
16	3.769	30.31	0.20	20.82	364.65	5.28	0.99	1.38	0.99	1.38	0.63	0.00	0.00	0.00	0.00	0.00	0.	0.00	
17	3.570	30.31	0.21	21.43	364.21	5.28	0.96	1.36	0.96	1.36	0.63	0.00	0.00	0.00	0.00	0.00	0.	0.00	

FINAL REPORT BT01
 REACH NO. 5 BT-10 to BT-11

LOWER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/23/07
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	PHOS	CHL A	COLI	NCM
		deg C	ppt	MG/L	IN MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	#/100mL	MG/L	
18	UPR RCH EACH	0.13060	30.31	0.21	21.43	364.21	5.28	0.96	1.36	0.96	1.36	0.63	0.00	0.00	0.00	0.00	0.00	
	INCR	0.02750	30.31	0.16	12.80	334.30	5.00	1.21	1.36			0.85	0.00	0.00	0.00	0.00	0.00	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
	km	km	m ³ /s		m/s	days	m	m	m ³	m ²	m ²	m ³	m/s	m ² /s	m/s
18	3.57	3.36	0.15810	0.0	0.00504	0.48	1.66	18.90	6588.54	3969.00	31.37	4672.38	0.003	0.091	0.005
19	3.36	3.15	0.18560	0.0	0.00592	0.41	1.66	18.90	6588.54	3969.00	31.37	5069.67	0.004	0.099	0.006

20	3.15	2.94	0.21310	0.0	0.00679	0.36	1.66	18.90	6588.54	3969.00	31.37	5466.97	0.004	0.106	0.007
21	2.94	2.73	0.24060	0.0	0.00767	0.32	1.66	18.90	6588.54	3969.00	31.37	5864.27	0.004	0.114	0.008
22	2.73	2.52	0.26810	0.0	0.00855	0.28	1.66	18.90	6588.54	3969.00	31.37	6261.57	0.004	0.122	0.009
23	2.52	2.31	0.29560	0.0	0.00942	0.26	1.66	18.90	6588.54	3969.00	31.37	6658.86	0.005	0.129	0.009
24	2.31	2.10	0.32310	0.0	0.01030	0.24	1.66	18.90	6588.54	3969.00	31.37	7056.16	0.005	0.137	0.010
25	2.10	1.89	0.35060	0.0	0.01117	0.22	1.66	18.90	6588.54	3969.00	31.37	7453.46	0.005	0.145	0.011
TOT						2.56			52708.32		31752.00				
AVG					0.0076		1.66	18.90			31.37				
CUM					6.66										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d ^a	BOD#1 DECAY 1/d ^a	BOD#1 SETT 1/d ^a	ABOD#1 DECAY 1/d ^a	BOD#2 DECAY 1/d ^a	BOD#2 SETT 1/d ^a	ABOD#2 DECAY 1/d ^a	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d ^a	ORGN SETT 1/d ^a	NH3 DECAY 1/d ^a	NH3 SRCE *	DENIT RATE 1/d ^a	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d ^a	NCM DECAY 1/d ^a	NCM SETT 1/d ^a		
18	3.360	7.51	0.51	0.66	0.06	0.00	0.05	0.06	0.00	0.52	0.52	0.52	0.31	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
19	3.150	7.51	0.51	0.66	0.06	0.00	0.05	0.06	0.00	0.52	0.52	0.52	0.31	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
20	2.940	7.51	0.51	0.66	0.06	0.00	0.05	0.06	0.00	0.52	0.52	0.52	0.31	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
21	2.730	7.51	0.51	0.66	0.06	0.00	0.05	0.06	0.00	0.52	0.52	0.52	0.31	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
22	2.520	7.51	0.51	0.66	0.06	0.00	0.05	0.06	0.00	0.52	0.52	0.52	0.31	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
23	2.310	7.51	0.51	0.66	0.06	0.00	0.05	0.06	0.00	0.52	0.52	0.52	0.31	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
24	2.100	7.51	0.51	0.66	0.06	0.00	0.05	0.06	0.00	0.52	0.52	0.52	0.31	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
25	1.890	7.51	0.51	0.66	0.06	0.00	0.05	0.06	0.00	0.52	0.52	0.52	0.31	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE	0.42	0.41	0.05	0.00	0.03	0.05	0.00	0.27				0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
18	3.360	30.31	0.20	19.94	359.04	5.21	0.97	1.34	0.97	1.34	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
19	3.150	30.31	0.20	18.90	355.42	5.18	0.98	1.33	0.98	1.33	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
20	2.940	30.31	0.19	18.12	352.73	5.15	0.98	1.32	0.98	1.32	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
21	2.730	30.31	0.19	17.52	350.64	5.14	0.98	1.31	0.98	1.31	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
22	2.520	30.31	0.18	17.04	348.98	5.13	0.98	1.31	0.98	1.31	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
23	2.310	30.31	0.17	16.65	347.63	5.12	0.98	1.31	0.98	1.31	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
24	2.100	30.31	0.17	16.32	346.50	5.11	0.98	1.30	0.98	1.30	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
25	1.890	30.31	0.16	16.06	345.60	5.12	0.99	1.30	0.99	1.30	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 6 BT-11 to BT-12

LOWER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/23/07
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM	TYPE	FLOW	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	PHOS	CHL A	COLI	NCM
------	------	------	------	------	------	-------	----	-------	-------	--------	--------	------	-----	-------	------	-------	------	-----

NO.		deg C	ppt	MG/L	IN MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	#/100mL	MG/L
26	UPR RCH EACH	0.35060	30.31	0.16	16.06	345.60	5.12	0.99	1.30	0.99	1.30	0.57	0.00	0.00	0.00	0.00	0.00
	INCR	-0.00042															

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
26	1.89	1.66	0.35018	0.0	0.01118	0.23	1.37	22.86	7077.91	5166.36	31.32	8071.35	0.006	0.134	0.011
27	1.66	1.44	0.34976	0.0	0.01117	0.23	1.37	22.86	7077.91	5166.36	31.32	8689.25	0.006	0.144	0.011
28	1.44	1.21	0.34934	0.0	0.01115	0.23	1.37	22.86	7077.91	5166.36	31.32	9307.15	0.007	0.155	0.011
29	1.21	0.99	0.34892	0.0	0.01114	0.23	1.37	22.86	7077.91	5166.36	31.32	9925.04	0.007	0.165	0.011
30	0.99	0.76	0.34850	0.0	0.01113	0.24	1.37	22.86	7077.91	5166.36	31.32	10542.94	0.007	0.175	0.011
TOT AVG CUM					0.0112	1.17			35389.57	25831.80					
							7.83	22.86			31.32				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE mg/L	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD 1/da	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
26	1.664	7.51	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.06	0.06	0.06	0.30	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
27	1.438	7.51	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.06	0.06	0.06	0.30	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
28	1.212	7.51	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.06	0.06	0.06	0.30	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
29	0.986	7.51	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.06	0.06	0.06	0.30	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
30	0.760	7.51	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.06	0.06	0.06	0.30	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE	0.51	0.31	0.05	0.00	0.03	0.05	0.00	0.03				0.16	0.03	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
26	1.664	30.31	0.17	16.06	345.60	5.25	1.04	1.30	1.04	1.30	0.62	0.00	0.00	0.00	0.00	0.00	0.	0.00	
27	1.438	30.31	0.18	16.06	345.60	5.37	1.09	1.30	1.09	1.30	0.66	0.00	0.00	0.00	0.00	0.00	0.	0.00	
28	1.212	30.31	0.18	16.06	345.60	5.46	1.13	1.30	1.13	1.30	0.70	0.00	0.00	0.00	0.00	0.00	0.	0.00	
29	0.986	30.31	0.19	16.06	345.60	5.53	1.17	1.30	1.17	1.30	0.73	0.00	0.00	0.00	0.00	0.00	0.	0.00	
30	0.760	30.31	0.20	16.06	345.60	5.59	1.20	1.30	1.20	1.30	0.76	0.00	0.00	0.00	0.00	0.00	0.	0.00	

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
31 EACH	UPR RCH INCR	0.34850 -0.00035	30.31	0.20	16.06	345.60	5.59	1.20	1.30	1.20	1.30	0.76	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VEL0 m/s
31	0.76	0.57	0.34815	0.0	0.01112	0.20	1.37	22.86	5950.46	4343.40	31.32	11062.41	0.008	0.184	0.011
32	0.57	0.38	0.34780	0.0	0.01111	0.20	1.37	22.86	5950.46	4343.40	31.32	11581.88	0.008	0.192	0.012
33	0.38	0.19	0.34744	0.0	0.01109	0.20	1.37	22.86	5950.46	4343.40	31.32	12101.35	0.009	0.201	0.012
34	0.19	0.00	0.34709	0.0	0.01108	0.20	1.37	22.86	5950.46	4343.40	31.32	12620.82	0.009	0.210	0.012
TOT AVG CUM					0.0111	0.79			23801.83	17373.60					
							1.37	22.86			31.32				
								8.63							

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	ABOD#1 SETT 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE *	ALG PROD *	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d
31	0.570	7.51	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.00	*	*	*	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
32	0.380	7.51	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.00	*	*	*	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
33	0.190	7.51	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.00	*	*	*	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
34	0.000	7.51	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.00	*	*	*	0.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Avg	20	DEG C	RATE	0.51	0.31	0.05	0.00	0.03	0.05	0.00	0.00				0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
31	0.570	30.31	0.17	16.06	345.59	5.66	1.23	1.28	1.23	1.28	0.74	0.00	0.00	0.00	0.00	0.00	0.	0.00	
32	0.380	30.31	0.15	16.06	345.51	5.71	1.26	1.25	1.26	1.25	0.71	0.00	0.00	0.00	0.00	0.00	0.	0.00	
33	0.190	30.31	0.12	16.10	344.50	5.75	1.32	1.25	1.32	1.25	0.72	0.00	0.00	0.00	0.00	0.00	0.	0.00	
34	0.000	30.31	0.10	16.47	333.22	5.64	1.74	1.56	1.74	1.56	1.00	0.00	0.00	0.00	0.00	0.00	0.	0.00	

LOWER BAYOU TERREBONNE SUMMER PROJECTION MODEL 10/23/07
DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft	
1	Weir #3 to Bayou Cane		6.93	6.72	0.21	0.23	0.11464	0.01053	0.760	14.32	4.048	0.035	2.494	46.98
2	Bayou Cane to BT-08		6.72	6.49	0.23	0.27	0.12479	0.01002	0.870	14.32	4.406	0.033	2.854	46.98
3	BT-08 to BT-09		6.49	5.56	0.93	1.02	0.09721	0.01059	0.710	14.32	3.432	0.035	2.330	46.98
4	BT-09 to BT-10		5.56	3.57	1.99	2.58	0.13060	0.00891	0.880	14.63	4.611	0.029	2.887	48.00
5	BT-10 to BT-11		3.57	1.89	1.68	2.56	0.35060	0.00758	1.660	18.90	12.380	0.025	5.446	62.01
6	BT-11 to BT-12		1.89	0.76	1.13	1.17	0.34850	0.01115	1.370	22.86	12.306	0.037	4.495	75.00
7	BT-12 to ICWW		0.76	0.00	0.76	0.79	0.34709	0.01110	1.370	22.86	12.256	0.036	4.495	75.00

.....EXECUTION COMPLETED

**APPENDIX F2 – SUMMER PROJECTION WATER QUALITY INPUT
JUSTIFICATIONS (Lower Terrebonne Model)**

WATER QUALITY INPUT DATA AND JUSTIFICATION

BAYOU TERREBONNE SUBSEGMENT 120301

SUMMER PROJECTION (Lower Terrebonne Model)

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)			
DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
OCEAN EXCHANGE RATIO	1		Tidal impacts considered to be significant
TIDE HEIGHT	0.13	meters	Site ICWW (located in Intercoastal Waterway)
MAXIMUM ITERATION LIMIT	200		Adjusted for convergence
EFFECTIVE BOD DUE TO ALGAE	0.01	mg/L BOD /ug chl a/ day	Calibration
ALGAE OXYGEN PRODUCTION	0	mg O / ug chl a / day	Turned off for simulation
HYDRAULIC CALCULATION METHOD	2		Widths and depths

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)						
DATA TYPE 8 - REACH IDENTIFICATION DATA						
Reach	ID	Name	Upstream River Kilometer	Downstream River Kilometer	Element Length, km	Data Source
1	BT	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	6.93	6.72	0.2100	GIS and survey data
2	BT	Lower Bayou Terrebonne, Bayou Cane to BT08	6.72	6.49	0.2300	Same as reach 1
3	BT	Lower Bayou Terrebonne, BT08 to BT09	6.49	5.56	0.1860	Same as reach 1
4	BT	Lower Bayou Terrebonne, BT09 to BT10	5.56	3.57	0.1990	Same as reach 1
5	BT	Lower Bayou Terrebonne, BT10 to BT11	3.57	1.89	0.2100	Same as reach 1
6	BT	Lower Bayou Terrebonne, BT11 to BT12	1.89	0.76	0.2260	Same as reach 1
7	BT	Lower Bayou Terrebonne, BT12 to ICWW	0.76	0.00	0.1900	Same as reach 1

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)														
DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS														
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source	
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	0	0	14.32	Site BT07	0	0	0.76	Site BT07	0	Best professional judgement and knowledge of the area - value used in all reaches	0.03	Environmental Engineering, P.E. Examination Guide and Handbook by C. King, p. 113	
2	Lower Bayou Terrebonne, Bayou Cane to BT08	0	0	14.32	Site BT08	0	0	0.87	Site BT08	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	
3	Lower Bayou Terrebonne, BT08 to BT09	0	0	14.32	Site BT09	0	0	0.71	Site BT09	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	
4	Lower Bayou Terrebonne, BT09 to BT10	0	0	14.63	Site BT10	0	0	0.88	Site BT10	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)														
DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS														
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source	
5	Lower Bayou Terrebonne, BT10 to BT11	0	0	18.90	Site BT11	0	0	1.66	Site BT11	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	
6	Lower Bayou Terrebonne, BT11 to BT12	0	0	22.86	Site BT12	0	0	1.37	Site BT12	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	
7	Lower Bayou Terrebonne, BT12 to ICWW	0	0	22.86	Site BT12	0	0	1.37	Site BT12	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)									
DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS									
Reach	Name	Tidal Range	Data Source	"a"	Data Source	"b"	"c"	"d"	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	0.69	Ratio of the tidal amplitude at BT07 to the amplitude at ICWW	18.00	Calibration	0.833	0.00	1.00	Constant values used for advective dispersion
2	Lower Bayou Terrebonne, Bayou Cane to BT08	0.66	Average of the values used in reaches 1 and 3	18.00	Same as reach 1	0.833	0.00	1.00	Same as reach 1
3	Lower Bayou Terrebonne, BT08 to BT09	0.62	Ratio of the tidal amplitude at BT09 to the amplitude at ICWW	18.00	Same as reach 1	0.833	0.00	1.00	Same as reach 1
4	Lower Bayou Terrebonne, BT09 to BT10	0.70	Average of the values used in reaches 3 and 5	18.00	Same as reach 1	0.833	0.00	1.00	Same as reach 1
5	Lower Bayou Terrebonne, BT10 to BT11	0.77	Ratio of the tidal amplitude at BT10 to the amplitude at ICWW	18.00	Same as reach 1	0.833	0.00	1.00	Same as reach 1
6	Lower Bayou Terrebonne, BT11 to BT12	0.92	Ratio of the tidal amplitude at BT12 to the amplitude at ICWW	18.00	Same as reach 1	0.833	0.00	1.00	Same as reach 1
7	Lower Bayou Terrebonne, BT12 to ICWW	0.92	Ratio of the tidal amplitude at BT12 to the amplitude at ICWW	18.00	Same as reach 1	0.833	0.00	1.00	Same as reach 1

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)							
DATA TYPE 11 - INITIAL CONDITIONS							
Reach	Name	Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chl a	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	30.31	0.20	5.0	Temp set to summer 90 th percentile for WQN site 110; DO set to criteria; salinity retained from site BT07	0.0	Assumed that chl a would be reduced to insignificant levels with reduction in nutrients
2	Lower Bayou Terrebonne, Bayou Cane to BT08	30.31	0.20	5.0	Temp and DO sources same as reach 1; salinity retained from BT07 continuous monitor data	0.0	Same as reach 1
3	Lower Bayou Terrebonne, BT08 to BT09	30.31	0.17	5.0	Temp and DO sources same as reach 1; salinity retained from BT08 insitu data	0.0	Same as reach 1
4	Lower Bayou Terrebonne, BT09 to BT10	30.31	0.11	5.0	Temp and DO sources same as reach 1; salinity retained from site BT09 continuous monitor data	0.0	Same as reach 1
5	Lower Bayou Terrebonne, BT10 to BT11	30.31	0.21	5.0	Temp and DO sources same as reach 1; salinity retained from site BT10 continuous monitor data	0.0	Same as reach 1

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)							
DATA TYPE 11 - INITIAL CONDITIONS							
Reach	Name	Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chl a	Data Source
6	Lower Bayou Terrebonne, BT11 to BT12	30.31	0.16	5.0	Temp and DO sources same as reach 1; salinity retained from site BT11 insitu data	0.0	Same as reach 1
7	Lower Bayou Terrebonne, BT12 to ICWW	30.31	0.20	5.0	Temp and DO sources same as reach 1; salinity retained from site BT12 continuous monitor data	0.0	Same as reach 1

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)																			
DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS																			
REACH	NAME	K ₂ OPT	K ₂ "A"	K ₂ "B"	K ₂ "C"	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Anearobic BOD1 Dec Rate (1/day)	Aerobic BOD2 Dec Rate (1/day)	Anearobic BOD2 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	BOD2 SETT RATE (1/day)	Data Source	SETTLED BOD1 CONV TO SOD	SETTLED BOD2 CONV TO SOD	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	19	0.0	0	0	Owens, et. al. 1964	0.78	SOD based 65% reduction in nonpoint load	0.31		0.03		Site BT07	0.05	0.05	Calibration	0	0	BOD not converted to SOD
2	Lower Bayou Terrebonne, Bayou Cane to BT08	19	0.0	0	0	Same as reach1	0.78	Same as reach1	0.24		0.03		Site BT08	0.05	0.05	Same as reach1	0	0	Same as reach1
3	Lower Bayou Terrebonne, BT08 to BT09	19	0.0	0	0	Same as reach1	0.86	Same as reach1	0.22		0.03		Site BT09	0.05	0.05	Same as reach1	0	0	Same as reach1
4	Lower Bayou Terrebonne, BT09 to BT10	19	0.0	0	0	Same as reach1	0.86	Same as reach1	0.20		0.03		Site BT10	0.05	0.05	Same as reach1	0	0	Same as reach1
5	Lower Bayou Terrebonne, BT10 to BT11	19	0.0	0	0	Same as reach1	0.31	Same as reach1	0.41		0.03		Site BT11	0.05	0.05	Same as reach1	0	0	Same as reach1
6	Lower Bayou Terrebonne, BT11 to BT12	19	0.0	0	0	Same as reach1	0.04	Same as reach1	0.31		0.03		Site BT12	0.05	0.05	Same as reach1	0	0	Same as reach1
7	Lower Bayou Terrebonne, BT12 to ICWW	19	0.0	0	0	Same as reach1	0.0	Same as reach1	0.31		0.03		Site BT12	0.05	0.05	Same as reach1	0	0	Same as reach1

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)				
DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS				
Reach	Name	NBOD decay rate, 1/day	NBOD settling rate, 1/day	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	0.09	0.025	Site BT07; Calibration
2	Lower Bayou Terrebonne, Bayou Cane to BT08	0.12	0.025	Site BT08; Calibration
3	Lower Bayou Terrebonne, BT08 to BT09	0.09	0.025	Site BT09; Calibration
4	Lower Bayou Terrebonne, BT09 to BT10	0.12	0.025	Site BT04; Calibration
5	Lower Bayou Terrebonne, BT10 to BT11	0.17	0.025	Site BT11; Calibration
6	Lower Bayou Terrebonne, BT11 to BT12	0.16	0.025	Site BT12; Calibration
7	Lower Bayou Terrebonne, BT12 to ICWW	0.10	0.025	Site ICWW; Calibration

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)									
DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Ouflow, cms	Incr. Inflow, cms	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I	Cons. Mat II	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane		0.00926	Retained from calibration model	30.31	0.20	11.6	373.13	Summer 90 th percentile temperature for WQN site 110; WQ data based on 24-hr continuous monitor data, insitu data, and lab data for Site BT07
2	Lower Bayou Terrebonne, Bayou Cane to BT08		0.01015	Same as reach 1	30.31	0.13	10.5	272.4	Temp source same as reach 1; WQ data based on insitu data and lab data for Site BC01 (residual influence of Bayou Cane)
3	Lower Bayou Terrebonne, BT08 to BT09	-0.02758		Same as reach1					WQ data not needed for outflow
4	Lower Bayou Terrebonne, BT09 to BT10		0.03339	Same as reach1	30.31	0.21	50.8	362.93	Temp source same as reach 1; WQ data based on 24-hr continuous monitor data, insitu data, and lab data for Site BT10

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)									
DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Ouflow, cms	Incr. Inflow, cms	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I	Cons. Mat II	Data Source
5	Lower Bayou Terrebonne, BT10 to BT11		0.22	Same as reach1	30.31	0.16	12.8	334.30	Temp source same as reach 1; WQ data based on insitu data and lab data for Site BT11
6	Lower Bayou Terrebonne, BT11 to BT12	-0.00210		Same as reach1					Same as reach 3
7	Lower Bayou Terrebonne, BT12 to ICWW	-0.00141		Same as reach1					Same as reach 3

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)									
DATA TYPES 17 - INCREMENTAL DATA FOR DO, BOD, AND NITROGEN									
Reach	Reach Name	DO, mg/l	UCBOD 1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH ³ -N, mg/L	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	5.0							DO set to criteria; BOD based on 70% reduction of nonpoint loads
2	Lower Bayou Terrebonne, Bayou Cane to BT08	5.0							DO set to criteria; BOD based on 70% reduction of nonpoint loads
3	Lower Bayou Terrebonne, BT08 to BT09								WQ data not needed for outflow
4	Lower Bayou Terrebonne, BT09 to BT10	5.0							DO set to criteria; BOD based on 70% reduction of nonpoint loads
5	Lower Bayou Terrebonne, BT10 to BT11	5.0							DO set to criteria; BOD based on 70% reduction of nonpoint loads
6	Lower Bayou Terrebonne, BT11 to BT12								Same as reach 3

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)									
DATA TYPES 17 - INCREMENTAL DATA FOR DO, BOD, AND NITROGEN									
Reach	Reach Name	DO, mg/l	UCBOD 1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH ³ -N, mg/L	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
7	Lower Bayou Terrebonne, BT12 to ICWW								Same as reach 3

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)						
DATA TYPE 19 - NONPOINT SOURCES						
Reach	Reach Name	Length of Reach, km	UCBOD1 (kg/day)	NBOD (kg/day)	UCBOD2 (kg/day)	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	0.21	0.78	0.51	0.58	Based on 70% reduction in nonpoint load
2	Lower Bayou Terrebonne, Bayou Cane to BT08	0.23	0.19	0.74	0.78	Same as reach 1
3	Lower Bayou Terrebonne, BT08 to BT09	0.93	9.72	0.62	4.67	Same as reach 1
4	Lower Bayou Terrebonne, BT09 to BT10	1.99	6.61	3.89	1.94	Same as reach 1
5	Lower Bayou Terrebonne, BT10 to BT11	1.68	38.89	5.44	7.00	Same as reach 1
6	Lower Bayou Terrebonne, BT11 to BT12	1.13	33.83	16.33	6.22	Same as reach 1
7	Lower Bayou Terrebonne, BT12 to ICWW	0.76	23.33	0.78	0.0	Same as reach 1

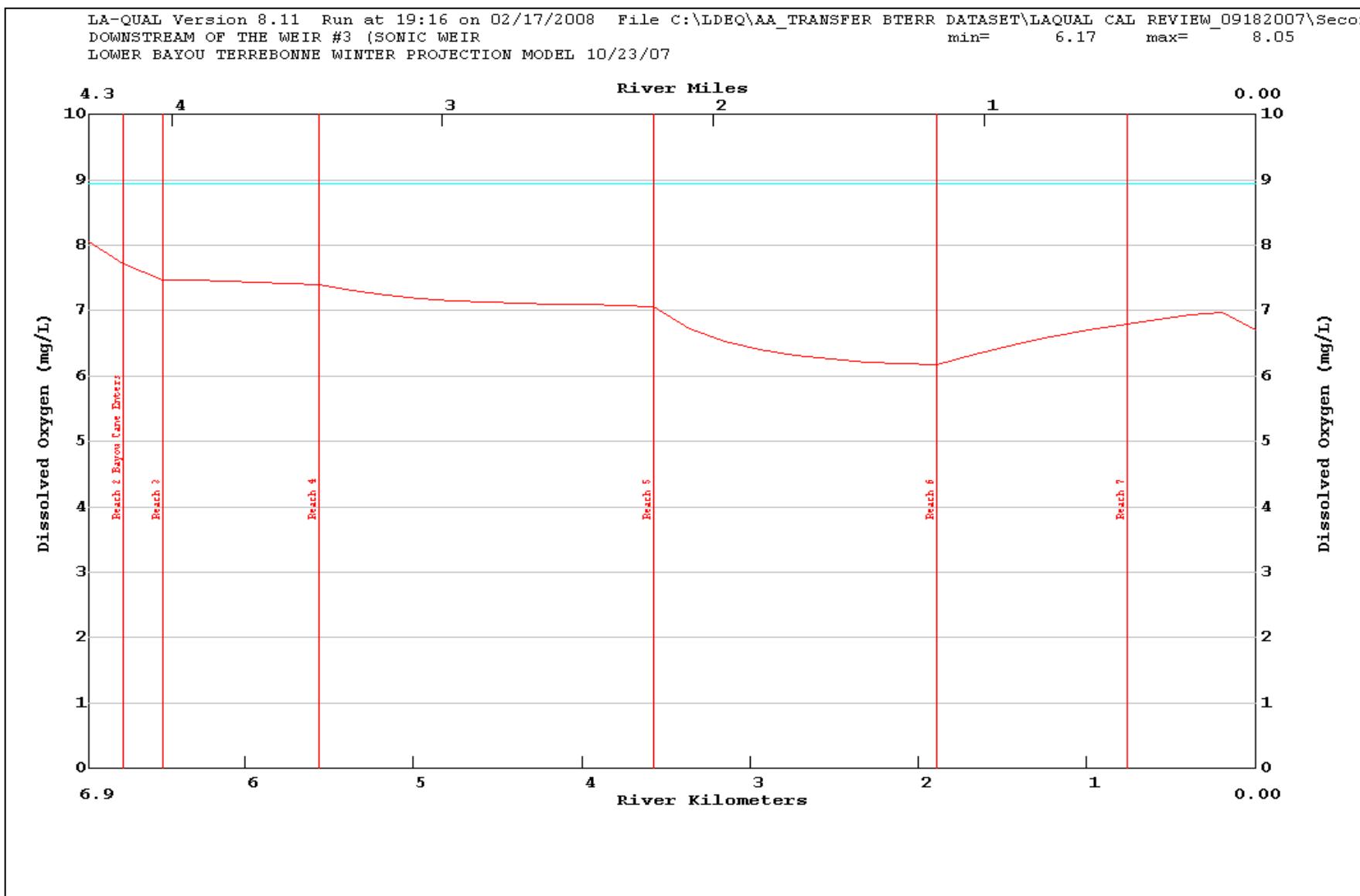
Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)								
DATA TYPES 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES								
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms	Temp, deg C	Sal, ppt	Conservative Material I	Conservative Material II	Data Source
Reach 1 Headwaters of Lower Bayou Terrebonne downstream of weir # 3	1	Not used	0.10538	30.31	0.2	11.6	373.13	Critical tidal flow determined by tidal prism calculation; Temp source based on summer 90 th percentile temperature at WQN site 110; Salinity and conductivity based on 24-hr average continuous monitor data; Chloride based on lab data for Site BT07

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)					
DATA TYPES 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN					
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	UCBOD2, mg/l	Data Source
Reach 1 Headwaters of Lower Bayou Terrebonne downstream of weir # 3	6.77	1.80	0.81	1.58	Headwater DO value set to 90 percent of saturation DO concentration; UCBOD1, UCBOD2, and NBOD values based on 70% reduction of nonpoint load

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)		
DATA TYPES 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES		
Headwater Name	Chlorophyll a, ug/L	Date Source
Reach 1 Headwaters of Lower Bayou Terrebonne downstream of weir # 3	0.0	Assumed that chl a would be reduced to insignificant levels with reduction in nutrients

Bayou Terrebonne 120301 Summer Justifications (LowerTerrebonne Model)			
DATA TYPES 27 - LOWER BOUNDARY CONDITIONS			
Survey Site Name: ICWW (for Lower Terrebonne Model)			
Parameter	Value	Units	Data Source
TEMPERATURE	30.31	degrees Celsius	Summer 90 th percentile temperature for WQN site 110
SALINITY	0.10	ppt	Site ICWW continuous monitor data (24-hour average)
CONSERVATIVE MATERIAL I	18.5	mg/L	Site ICWW lab data
CONSERVATIVE MATERIAL II	270.97	mg/L	Site ICWW continuous monitor data (24-hour average)
DISSOLVED OXYGEN	5.0	mg/L	DO set to criteria
BIOCHEMICAL OXYGEN DEMAND 1	4.21	mg/L	Site ICWW BOD data
BIOCHEMICAL OXYGEN DEMAND 2	3.45	mg/L	Site ICWW BOD data
NBOD	2.73	mg/L	Site ICWW BOD data
CHLOROPHYLL A	0.0	ug/L	Assumed that chl a would be reduced to insignificant levels with reduction in nutrients

**APPENDIX F3 – WINTER PROJECTION MODEL GRAPH, INPUT FILE, AND
OUTPUT FILE
(Lower Terrebonne Model)**



LOWER TERREBONNE INPUT FILE – WINTER PROJECTION

TITLE01 LOWER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
TITLE02 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR
! Modeled CBOD1, CBOD2, and NBOD; Used constant widths and depths; estimated
tidal flow
CONTROL YES METRIC UNITS
! Winter Projection
! 70 % NP red; no PS; MOS = 10%
ENDATA01
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1
MODOPT07 YES BOD2
MODOPT08 YES NBOD OXYGEN DEMAND IN MG/L
MODOPT09 NO PHOSPHORUS
MODOPT10 NO CHLOROPHYLL A
MODOPT11 NO MACROPHYTES
MODOPT12 NO COLIFORM
MODOPT13 NO NONCONSERVATIVE MATERIAL = NBOD IN MG/L
ENDATA02
PROGRAM KL MINIMUM = 0.7
PROGRAM MAXIMUM ITERATION LIMIT = 200.
PROGRAM HYDRAULIC CALCULATION METHOD = 2.
PROGRAM TIDE HEIGHT = 0.13
PROGRAM TIDAL PERIOD = 25.0
PROGRAM DISPERSION = 2
PROGRAM EFFECTIVE BOD DUE TO ALGAE = 0.01
PROGRAM ALGAE OXYGEN PRODUCTION RATE = 0
PROGRAM INHIBITION CONTROL VALUE = 3
PROGRAM OCEAN EXCHANGE RATIO = 1.0
PROGRAM SETTLING RATE UNITS = 2
ENDATA03
ENDATA04
ENDATA05
ENDATA06
ENDATA07
! Reach data entered on 9/19/04; Added a single-element headwater reach above
Weir #3 10/27/04
! Removed the single element weir on 10/10/2007. Started model below the weir
REACH ID 1 BT Weir #3 to Bayou Cane 6.93 6.72 0.2100
REACH ID 2 BC Bayou Cane to BT-08 6.72 6.49 0.2300
REACH ID 3 BT BT-08 to BT-09 6.49 5.56 0.1860
REACH ID 4 BT BT-09 to BT-10 5.56 3.57 0.1990
REACH ID 5 BT BT-10 to BT-11 3.57 1.89 0.2100
REACH ID 6 BT BT-11 to BT-12 1.89 0.76 0.2260
REACH ID 7 BT BT-12 to ICWW 0.76 0.00 0.1900
ENDATA08
! Data entered 9/22/04
!
! Datatype 9 revised 9/24/2007; width and depth constants determined by the
! downstream site in each reach
HYDR-1 1 0 0 14.32 0 0 0.76 0 0.03

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

	2	0	0	14.32	0	0	0.87	0	0.03
HYDR-1	3	0	0	14.32	0	0	0.71	0	0.03
HYDR-1	4	0	0	14.63	0	0	0.88	0	0.03
HYDR-1	5	0	0	18.90	0	0	1.66	0	0.03
HYDR-1	6	0	0	22.86	0	0	1.37	0	0.03
HYDR-1	7	0	0	22.86	0	0	1.37	0	0.03

ENDATA09

!
 This area is tidal;
 !
 10/12/07 - SET TRANGE values based on survey sites;
 !
 set "b", "c", "d" to 0.833, 0, 1 based on LDEQ standard practice;
 !
 calibrated "a" to measured dispersion values

!000000001111111112222222333333334444444445555555566666666777777777778

!2345678901234567890123456789012345678901234567890123456789012345678901234567890

	RCH	TRANGE	"a"	"b"	"c"	"d"
HYDR-2	1	0.69	18.00	0.833	0.00	1.00
HYDR-2	2	0.66	18.00	0.833	0.00	1.00
HYDR-2	3	0.62	18.00	0.833	0.00	1.00
HYDR-2	4	0.70	18.00	0.833	0.00	1.00
HYDR-2	5	0.77	18.00	0.833	0.00	1.00
HYDR-2	6	0.92	18.00	0.833	0.00	1.00
HYDR-2	7	0.92	18.00	0.833	0.00	1.00

ENDATA10

!
 Data entered on 9/22/04
 !
 Initial conditions temp, sal, DO and chl a revised 10/2/07; revised 10/15/07
 !
 to match site located at the upstream end of each reach
 !
 Modified Temp, DO, and chlor a for summer projection on 10/18/07

!00000000111111112222222333333334444444455555555666666667777777778

!234567890123456789012345678901234567890123456789012345678901234567890

	TEMP	SAL	DO	CHL A	MACRO
INITIAL	1	20.83	0.20	5.00	0.00
INITIAL	2	20.83	0.20	5.00	0.00
INITIAL	3	20.83	0.17	5.00	0.00
INITIAL	4	20.83	0.11	5.00	0.00
INITIAL	5	20.83	0.21	5.00	0.00
INITIAL	6	20.83	0.16	5.00	0.00
INITIAL	7	20.83	0.20	5.00	0.00

ENDATA11

```
! Initial data entered 9/22/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream
! end of each reach
!00000000111111112222222333333334444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      REAERATION          SOD BOD1DEC SETT CON2SOD ANEARO BOD2DEC SETT CON2SOD ANEARO
COEF-1    1    19   0.0   0.0    0.0   0.67   0.31   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    2    19   0.0   0.0    0.0   0.67   0.24   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    3    19   0.0   0.0    0.0   0.73   0.22   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    4    19   0.0   0.0    0.0   0.73   0.20   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    5    19   0.0   0.0    0.0   0.27   0.41   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    6    19   0.0   0.0    0.0   0.03   0.31   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    7    19   0.0   0.0    0.0   0.00   0.31   0.05   0.0   0.0   0.03   0.05   0.0   0.0
ENDATA12
!
      Data entered 9/22/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream
! end of each reach
!0000000011111111222222233333333444444445555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      NBODDEC NBODSETT
COEF-2    1    0.09   0.025   0.0   0.0   0.0   0.0
COEF-2    2    0.12   0.025   0.0   0.0   0.0   0.0
COEF-2    3    0.09   0.025   0.0   0.0   0.0   0.0
COEF-2    4    0.12   0.025   0.0   0.0   0.0   0.0
COEF-2    5    0.17   0.025   0.0   0.0   0.0   0.0
COEF-2    6    0.16   0.025   0.0   0.0   0.0   0.0
COEF-2    7    0.10   0.025   0.0   0.0   0.0   0.0
ENDATA13
ENDATA14
ENDATA15
!
      Incremental data input started on 10/2/2007; finito in 10/5/07
! Flow based on TOT and distance for Run 4 dye data
! WQ data for each reach set to the value obtained at the site
!     at the downstream end of each reach
! Temp, sal, cond, and DO the continuous monitor data used if available
!     then insitu data used
! Salinity - calibrated to cont mon and insitu data
! Chlorides - calibrated to Lab data used
```

! Conductivity - calibrated to cont mon and insitu data
! BOD - Lab data used
! Data indicated residual influence of Bayou Cane, therefore WQ data for
! Reach 2 obtained from BC01
! modified Temp for summer projection on 10/18/07
!000000001111111122222223333333444444445555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
INCR-1 R# OUTFLOW INFLOW TEMP SAL CONSERVI CONSERV2
INCR-1 1 0.00926 20.83 0.20 11.6 373.13
INCR-1 2 0.01015 20.83 0.10 10.5 275.89
INCR-1 3 -0.02758
INCR-1 4 0.03339 20.83 0.21 50.8 362.93
INCR-1 5 0.22 20.83 0.16 12.8 334.30
INCR-1 6 -0.00210
INCR-1 7 -0.00141
ENDATA16
!
Modified DO for summer projection on 10/18/07
!00000000111111112222222333333344444444555555556666666677777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
INCR-2 R# DO BOD1 NBOD NH3 NO2 BOD2
INCR-2 1 5.00 1.54 0.69 1.36
INCR-2 2 5.00 1.27 0.61 1.47
INCR-2 3
INCR-2 4 5.00 1.24 0.89 1.40
INCR-2 5 5.00 1.21 0.85 1.36
INCR-2 6
INCR-2 7
ENDATA17
ENDATA18
!000000001111111122222223333333444444445555555566666666777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
NONPOINT BOD1 NBOD DO BOD2
NONPOINT 1 0.67 0.43 0.50
NONPOINT 2 0.17 0.63 0.67
NONPOINT 3 8.33 0.53 4.00
NONPOINT 4 5.67 3.33 1.67
NONPOINT 5 33.33 4.67 6.00
NONPOINT 6 29.00 14.00 5.33

NONPOINT 7 20.00 0.67 0.00
ENDATA19
! Data entered on 9/22/04; revised on 10/10/07; Headwater Q based on dye study,
! cross sectional data and linear interpolation; Headwater WQ based on site BT07
! HW DO set equal to BT07min + 1 = 0.6 + 1 = 1.60 mg/L
! Modified Temp for summer projection 10/18/07;
! Flow based on Max Forbes tidal flow calculations
!0000000011111111222222233333334444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
HDWTR-1 1 BT01 0 0.10538 20.83 0.200 11.6 373.13
ENDATA20
! Modified DO for summer projection on 10/18/07
!0000000011111111222222233333334444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
! DO BOD1 NBOD BOD2
HDWTR-2 1 8.05 1.54 0.69 0.0 0.0 1.36
ENDATA21
! Modified Chl a for summer projection on 10/18/07
!0000000011111111222222233333334444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
! CHL A
HDWTR-3 1 0.0 0.0 0.0 0.0
ENDATA22
ENDATA23
ENDATA24
ENDATA25
ENDATA26
! LBC data entered 9/19/04
! Modified Temp, DO, Chl a for summer projection 10/18/07
LOWER BC TEMPERATURE = 20.83
LOWER BC SALINITY = 0.10
LOWER BC CONSERVATIVE MATERIAL I = 18.5
LOWER BC CONSERVATIVE MATERIAL II = 270.97
LOWER BC DISSOLVED OXYGEN = 5.00
LOWER BC BOD1 = 4.21
LOWER BC BOD2 = 3.45
LOWER BC PHOSPHORUS = 0.00
LOWER BC CHLOROPHYLL A = 0.0

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

```
LOWER BC COLIFORM          =    0.00
LOWER BC NBOD              =   2.73
ENDATA27
ENDATA28
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 7
PLOT RCH 1  2  3  4  5  6  7
ENDATA30
OVERLAY 1 LowBTProjOvrlay.txt
ENDATA31
```

LOWER TERREBONNE OUTPUT FILE – WINTER PROJECTION

LA-QUAL Version 8.11

Louisiana Department of Environmental Quality

Input file is C:\LDEQ\AA_TRANSFER_BTERR_DATASET\LAQUAL CAL REVIEW_09182007\Second Revision 2008 Projections\South of Weir 3\LowBTerrWin_Tidalrev2_7R_incrQ 70red10MOS.txt
Output produced at 12:36 on 02/23/2008

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE CONTROL TITLES

TITLE01 LOWER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
TITLE02 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)
CONTROL YES METRIC UNITS
ENDATA01

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE MODEL OPTION

MODOPT01	NO	TEMPERATURE	
MODOPT02	NO	SALINITY	
MODOPT03	YES	CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MODOPT04	YES	CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN MG/L
MODOPT05	YES	DISSOLVED OXYGEN	
MODOPT06	YES	BOD1	
MODOPT07	YES	BOD2	
MODOPT08	YES	NBOD OXYGEN DEMAND	IN MG/L
MODOPT09	NO	PHOSPHORUS	
MODOPT10	NO	CHLOROPHYLL A	
MODOPT11	NO	MACROPHYTES	
MODOPT12	NO	COLIFORM	
MODOPT13	NO	NONCONSERVATIVE MATERIAL = NBOD	IN MG/L
ENDATA02			

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

```
PROGRAM      KL MINIMUM          =      0.70000 meters/day
PROGRAM      MAXIMUM ITERATION LIMIT =      200.00000
PROGRAM      HYDRAULIC CALCULATION METHOD =      2.00000 (widths and depths)
PROGRAM      TIDE HEIGHT          =      0.13000 meters
PROGRAM      TIDAL PERIOD        =      25.00000 hours
PROGRAM      DISPERSION          =      2.00000 (values entered as a function of
D,Q,Vtidal)
PROGRAM      EFFECTIVE BOD DUE TO ALGAE =      0.01000 mg/L BOD per ug/L chl a
PROGRAM      ALGAE OXYGEN PRODUCTION RATE =      0.00000 mg O/ug chl a/day
PROGRAM      INHIBITION CONTROL VALUE =      3.00000 (inhibit all rates but SOD)
PROGRAM      OCEAN EXCHANGE RATIO   =      1.00000
PROGRAM      SETTLING RATE UNITS    =      2.00000 (values entered as per day)
ENDATA03
```

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE RATE CODE THETA VALUE

ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA06

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	BT	Weir #3 to Bayou Cane	6.93	TO	6.72	0.2100	0.21	1	1
REACH ID	2	BC	Bayou Cane to BT-08	6.72	TO	6.49	0.2300	0.23	1	2
REACH ID	3	BT	BT-08 to BT-09	6.49	TO	5.56	0.1860	0.93	5	3
REACH ID	4	BT	BT-09 to BT-10	5.56	TO	3.57	0.1990	1.99	10	8
REACH ID	5	BT	BT-10 to BT-11	3.57	TO	1.89	0.2100	1.68	8	18
REACH ID	6	BT	BT-11 to BT-12	1.89	TO	0.76	0.2260	1.13	5	26
REACH ID	7	BT	BT-12 to ICWW	0.76	TO	0.00	0.1900	0.76	4	31

ENDATA08

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

CARD	TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1		1	BT	0.000	0.000	14.320	0.000	0.000	0.760	0.00000	0.030
HYDR-1		2	BC	0.000	0.000	14.320	0.000	0.000	0.870	0.00000	0.030
HYDR-1		3	BT	0.000	0.000	14.320	0.000	0.000	0.710	0.00000	0.030
HYDR-1		4	BT	0.000	0.000	14.630	0.000	0.000	0.880	0.00000	0.030
HYDR-1		5	BT	0.000	0.000	18.900	0.000	0.000	1.660	0.00000	0.030
HYDR-1		6	BT	0.000	0.000	22.860	0.000	0.000	1.370	0.00000	0.030
HYDR-1		7	BT	0.000	0.000	22.860	0.000	0.000	1.370	0.00000	0.030
ENDATA09											

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"			
HYDR		1	BT	0.69	18.000	0.833	0.000	1.000			
HYDR		2	BC	0.66	18.000	0.833	0.000	1.000			
HYDR		3	BT	0.62	18.000	0.833	0.000	1.000			
HYDR		4	BT	0.70	18.000	0.833	0.000	1.000			
HYDR		5	BT	0.77	18.000	0.833	0.000	1.000			
HYDR		6	BT	0.92	18.000	0.833	0.000	1.000			
HYDR		7	BT	0.92	18.000	0.833	0.000	1.000			
ENDATA10											

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD	TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL		1	BT	20.83	0.20	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		2	BC	20.83	0.20	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		3	BT	20.83	0.17	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		4	BT	20.83	0.11	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		5	BT	20.83	0.21	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		6	BT	20.83	0.16	5.00	0.00	0.00	0.00	0.00	0.00
INITIAL		7	BT	20.83	0.20	5.00	0.00	0.00	0.00	0.00	0.00
ENDATA11											

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD	BOD DECAY	BOD SETT	ANAER BOD2 DECAY	BOD2 DECAY	BOD2 SETT	ANAER BOD2 DECAY	
							g/m ² /d	per day	m/d	per day	per day	m/d	per day	
COEF-1	1	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.670	0.310	0.050	0.000	0.000	0.050	0.000	0.000
COEF-1	2	BC	19 OWENS <1.8 F	0.000	0.000	0.000	0.670	0.240	0.050	0.000	0.000	0.050	0.000	0.000
COEF-1	3	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.730	0.220	0.050	0.000	0.000	0.050	0.000	0.000
COEF-1	4	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.730	0.200	0.050	0.000	0.000	0.050	0.000	0.000
COEF-1	5	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.270	0.410	0.050	0.000	0.000	0.050	0.000	0.000
COEF-1	6	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.030	0.310	0.050	0.000	0.000	0.050	0.000	0.000
COEF-1	7	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.000	0.310	0.050	0.000	0.000	0.050	0.000	0.000
ENDATA12														

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH ID	NBOD DECA	NBOD SETT	ORGN CONV TO NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1 BT	0.090	0.025	0.000	0.000	0.000	0.000	0.000
COEF-2	2 BC	0.120	0.025	0.000	0.000	0.000	0.000	0.000
COEF-2	3 BT	0.090	0.025	0.000	0.000	0.000	0.000	0.000
COEF-2	4 BT	0.120	0.025	0.000	0.000	0.000	0.000	0.000
COEF-2	5 BT	0.170	0.025	0.000	0.000	0.000	0.000	0.000
COEF-2	6 BT	0.160	0.025	0.000	0.000	0.000	0.000	0.000
COEF-2	7 BT	0.100	0.025	0.000	0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING
-----------	----------	--------------	--------------	------------	-----------------	------------	------------	------------	------------	---------

ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
-----------	----------	------------------	-----------	----------	-----------------

ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1 BT	0.00000	0.00926	20.83	0.20	11.60	373.13	0.04410	0.00000
INCR-1	2 BC	0.00000	0.01015	20.83	0.10	10.50	275.89	0.04413	0.00000
INCR-1	3 BT	-0.02758	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.02966
INCR-1	4 BT	0.00000	0.03339	20.83	0.21	50.80	362.93	0.01678	0.00000
INCR-1	5 BT	0.00000	0.22000	20.83	0.16	12.80	334.30	0.13095	0.00000
INCR-1	6 BT	-0.00210	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00186
INCR-1	7 BT	-0.00141	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00186

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH ID	DO	BOD	NBOD	BOD#2		
INCR-2	1 BT	5.00	1.54	0.69	0.00	0.00	1.36
INCR-2	2 BC	5.00	1.27	0.61	0.00	0.00	1.47
INCR-2	3 BT	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	4 BT	5.00	1.24	0.89	0.00	0.00	1.40
INCR-2	5 BT	5.00	1.21	0.85	0.00	0.00	1.36
INCR-2	6 BT	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	7 BT	0.00	0.00	0.00	0.00	0.00	0.00

ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH ID	PHOS	CHL A	COLI	NCM
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ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
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NONPOINT	1	BT	0.67	0.43	0.00	0.00	0.50
NONPOINT	2	BC	0.17	0.63	0.00	0.00	0.67
NONPOINT	3	BT	8.33	0.53	0.00	0.00	4.00
NONPOINT	4	BT	5.67	3.33	0.00	0.00	1.67
NONPOINT	5	BT	33.33	4.67	0.00	0.00	6.00
NONPOINT	6	BT	29.00	14.00	0.00	0.00	5.33
NONPOINT	7	BT	20.00	0.67	0.00	0.00	0.00

ENDATA19

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m³/s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II IN MG/L
-----------	---------	------	------	--------------	-------------	---------------	--------------	--------------	------------------

HDWTR-1	1	BT01	0	0.10538	3.721	20.83	0.20	11.600	373.130	0.00
---------	---	------	---	---------	-------	-------	------	--------	---------	------

ENDATA20

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD#2 mg/L
-----------	---------	------	------------	---------------	--------------	------	------	---------------

HDWTR-2	1	BT01	8.05	1.54	0.69	0.00	0.00	1.36
---------	---	------	------	------	------	------	------	------

ENDATA21

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
-----------	---------	------	--------------	---------------	--------------	-------------

HDWTR-3	1	BT01	0.00	0.00	0.00	0.00
---------	---	------	------	------	------	------

ENDATA22

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME
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ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m³/s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II IN MG/L
-----------	---------	-------	------	--------------	-------------	-------------	---------------	--------------	--------------	------------------

ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	% NITRIF	BOD#2 mg/L
-----------	---------	------	------------	-------------	---------------	--------------	-------------	---------------

ENDATA25

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
-----------	---------	------	--------------	---------------	--------------	-------------

ENDATA26

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
-----------	-------------	---------------

LOWER BC	TEMPERATURE	= 20.830	deg C
LOWER BC	SALINITY	= 0.100	ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 18.500	MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 270.970	IN MG/L
LOWER BC	DISSOLVED OXYGEN	= 5.000	mg/L
LOWER BC	BOD1	= 4.210	mg/L
LOWER BC	BOD2	= 3.450	mg/L
LOWER BC	PHOSPHORUS	= 0.000	mg/L
LOWER BC	CHLOROPHYLL A	= 0.000	µg/L
LOWER BC	COLIFORM	= 0.000	#/100 mL
LOWER BC	NBOD	= 2.730	mg/L

ENDATA27

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
-----------	---------	------	-----	-----	-----	-----

ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
-----------	-----------	-------	-------	-------	-------	-------	-------	-------	-------

ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

```
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 7
PLOT RCH 1 2 3 4 5 6 7
```

ENDATA30

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

OVERLAY 1 LowBTProjOvrlay.txt
 ENDTA31

.....NO ERRORS DETECTED IN INPUT DATA
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 3 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED
GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

CONDENSED CAPSULE SUMMARY FOR BT01

DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	EBOD1 mg/L	EBOD2 mg/L	ORGN mg/L	NH3 µg/L	CHLA 1/d	REAER 1/da	BOD1 1/da	BOD1 1/da	BOD2 1/da	BOD2 1/da	NH3 0.00	RATE 1/da	DECA 1/da	SETT 1/da	DECA 1/da	SETT 1/da	DECA 1/da	SOD g/m²/d	
HDWTR	0.10538	20.83	0.20	8.05	1.54	1.36	0.69	0.00	0.00														
6.72	0.11464	20.83	0.20	7.72	1.48	1.38	0.71	0.00	0.00	0.94	0.32	0.05	0.03	0.05	0.00	0.71							
6.49	0.12479	20.83	0.17	7.47	1.37	1.42	0.74	0.00	0.00	0.82	0.25	0.05	0.03	0.05	0.00	0.71							
6.30	0.11927	20.83	0.16	7.46	1.45	1.48	0.73	0.00	0.00	1.00	0.23	0.05	0.03	0.05	0.00	0.77							
6.12	0.11376	20.83	0.15	7.45	1.54	1.53	0.72	0.00	0.00	1.00	0.23	0.05	0.03	0.05	0.00	0.77							
5.93	0.10824	20.83	0.13	7.44	1.62	1.59	0.72	0.00	0.00	1.00	0.23	0.05	0.03	0.05	0.00	0.77							
5.75	0.10273	20.83	0.12	7.42	1.70	1.65	0.71	0.00	0.00	1.00	0.23	0.05	0.03	0.05	0.00	0.77							
5.56	0.09721	20.83	0.11	7.41	1.78	1.70	0.71	0.00	0.00	1.00	0.23	0.05	0.03	0.05	0.00	0.77							
5.36	0.10055	20.83	0.12	7.31	1.70	1.67	0.72	0.00	0.00	0.81	0.21	0.05	0.03	0.05	0.00	0.77							
5.16	0.10389	20.83	0.13	7.24	1.63	1.64	0.73	0.00	0.00	0.81	0.21	0.05	0.03	0.05	0.00	0.77							
4.96	0.10723	20.83	0.14	7.19	1.56	1.62	0.74	0.00	0.00	0.81	0.21	0.05	0.03	0.05	0.00	0.77							
4.76	0.11057	20.83	0.15	7.16	1.51	1.59	0.75	0.00	0.00	0.81	0.21	0.05	0.03	0.05	0.00	0.77							
4.57	0.11390	20.83	0.16	7.13	1.46	1.57	0.76	0.00	0.00	0.81	0.21	0.05	0.03	0.05	0.00	0.77							
4.37	0.11724	20.83	0.17	7.11	1.42	1.55	0.77	0.00	0.00	0.81	0.21	0.05	0.03	0.05	0.00	0.77							
4.17	0.12058	20.83	0.18	7.10	1.38	1.53	0.78	0.00	0.00	0.81	0.21	0.05	0.03	0.05	0.00	0.77							
3.97	0.12392	20.83	0.19	7.09	1.34	1.51	0.78	0.00	0.00	0.81	0.21	0.05	0.03	0.05	0.00	0.77							
3.77	0.12726	20.83	0.20	7.08	1.31	1.50	0.79	0.00	0.00	0.81	0.21	0.05	0.03	0.05	0.00	0.77							
3.57	0.13060	20.83	0.21	7.06	1.29	1.48	0.79	0.00	0.00	0.81	0.21	0.05	0.03	0.05	0.00	0.77							
3.36	0.15810	20.83	0.20	6.73	1.28	1.46	0.77	0.00	0.00	0.43	0.43	0.05	0.03	0.05	0.00	0.28							
3.15	0.18560	20.83	0.20	6.53	1.28	1.44	0.76	0.00	0.00	0.43	0.43	0.05	0.03	0.05	0.00	0.28							
2.94	0.21310	20.83	0.19	6.41	1.28	1.43	0.75	0.00	0.00	0.43	0.43	0.05	0.03	0.05	0.00	0.28							
2.73	0.24060	20.83	0.19	6.32	1.28	1.42	0.74	0.00	0.00	0.43	0.43	0.05	0.03	0.05	0.00	0.28							
2.52	0.26810	20.83	0.18	6.26	1.28	1.41	0.74	0.00	0.00	0.43	0.43	0.05	0.03	0.05	0.00	0.28							
2.31	0.29560	20.83	0.17	6.22	1.28	1.41	0.74	0.00	0.00	0.43	0.43	0.05	0.03	0.05	0.00	0.28							
2.10	0.32310	20.83	0.17	6.18	1.28	1.40	0.73	0.00	0.00	0.43	0.43	0.05	0.03	0.05	0.00	0.28							
1.89	0.35060	20.83	0.16	6.17	1.28	1.40	0.73	0.00	0.00	0.43	0.43	0.05	0.03	0.05	0.00	0.28							
1.66	0.35018	20.83	0.17	6.33	1.35	1.41	0.79	0.00	0.00	0.52	0.32	0.05	0.03	0.05	0.00	0.03							
1.44	0.34976	20.83	0.18	6.48	1.42	1.42	0.85	0.00	0.00	0.52	0.32	0.05	0.03	0.05	0.00	0.03							
1.21	0.34934	20.83	0.18	6.60	1.48	1.42	0.90	0.00	0.00	0.52	0.32	0.05	0.03	0.05	0.00	0.03							
0.99	0.34892	20.83	0.19	6.70	1.54	1.43	0.95	0.00	0.00	0.52	0.32	0.05	0.03	0.05	0.00	0.03							

0.76	0.34850	20.83	0.20	6.79	1.59	1.44	1.00	0.00	0.00	0.52	0.32	0.05	0.03	0.05	0.00	0.03
0.57	0.34815	20.83	0.17	6.87	1.64	1.41	0.98	0.00	0.00	0.52	0.32	0.05	0.03	0.05	0.00	0.00
0.38	0.34780	20.83	0.15	6.94	1.68	1.39	0.96	0.00	0.00	0.52	0.32	0.05	0.03	0.05	0.00	0.00
0.19	0.34744	20.83	0.12	6.97	1.75	1.40	0.97	0.00	0.00	0.52	0.32	0.05	0.03	0.05	0.00	0.00
0.00	0.34709	20.83	0.10	6.71	2.14	1.69	1.22	0.00	0.00	0.52	0.32	0.05	0.03	0.05	0.00	0.00

FINAL REPORT BT01
 REACH NO. 1 Weir #3 to Bayou Cane

LOWER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
1 EACH	HDWTR	0.10538	20.83	0.20	11.60	373.13	8.05	1.54	1.36	1.54	1.36	0.69	0.00	0.00	0.00	0.00	0.00	0.00
	INCR	0.00926	20.83	0.20	11.60	373.13	5.00	1.54	1.36			0.69	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s	
1	6.93	6.72	0.11464	0.0	0.01053		0.23	0.76	14.32	2285.47	3007.20	10.88	269.75	0.001	0.008	0.011
TOT AVG CUM										2285.47	3007.20		10.88			

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	ABOD#1 SETT 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	ABOD#2 SETT 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d	
1	6.720	8.93	0.94	0.32	0.05	0.00	0.03	0.05	0.00	0.71	0.71	0.71	*	*	*	1/da	1/da	1/da	*	1/da	*	**	**	1/da	1/da	1/da
Avg	20	deg C	RATE	0.92	0.31	0.05	0.00	0.03	0.05	0.00	0.67															

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
1	6.720	20.83	0.20	11.60	373.09	7.72	1.48	1.38	1.48	1.38	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 2 Bayou Cane to BT-08

LOWER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
2 EACH	UPR RCH INCR	0.11464 0.01015	20.83 20.83	0.20 0.10	11.60 10.50	373.09 275.89	7.72 5.00	1.48 1.27	1.38 1.47	1.48 1.38	1.38 0.71	0.71 0.61	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO	
	km	km	m³/s		m/s	days	m	m	m³	m²	m²	m³	m/s	m²/s	m/s	
2	6.72	6.49	0.12479	0.0	0.01002		0.27	0.87	14.32	2865.43	3293.60	12.46	552.34	0.001	0.016	0.010
TOT							0.27		2865.43	3293.60						
AVG					0.0100			0.87	14.32							
CUM					0.50											

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE 1/d	DENIT RATE 1/d	PO4 SRCE 1/d	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d
2	6.490	8.94	0.82	0.25	0.05	0.00	0.03	0.05	0.00	0.71	*	*	0.71	0.71	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AVG	20	DEG C RATE	0.80	0.24	0.05	0.00	0.03	0.05	0.00	0.67					0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
2	6.490	20.83	0.17	11.51	365.22	7.47	1.37	1.42	1.37	1.42	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 3 BT-08 to BT-09

LOWER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM	TYPE	FLOW	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	PHOS	CHL A	COLI	NCM

NO.	UPR	RCH	deg C	ppt	MG/L	IN MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	#/100mL	MG/L
3	EACH	INCR	0.12479	20.83	0.17	11.51	365.22	7.47	1.37	1.42	1.37	1.42	0.74	0.00	0.00	0.00	0.00
			-0.00552														

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
	km	km	m³/s	m/s	m/s	days	m	m	m³	m²	m²	m³	m/s	m²/s	m/s
3	6.49	6.30	0.11927	0.0	0.01173	0.18	0.71	14.32	1891.10	2663.52	10.17	767.02	0.002	0.023	0.012
4	6.30	6.12	0.11376	0.0	0.01119	0.19	0.71	14.32	1891.10	2663.52	10.17	981.70	0.002	0.029	0.011
5	6.12	5.93	0.10824	0.0	0.01065	0.20	0.71	14.32	1891.10	2663.52	10.17	1196.38	0.003	0.035	0.011
6	5.93	5.75	0.10273	0.0	0.01010	0.21	0.71	14.32	1891.10	2663.52	10.17	1411.06	0.003	0.042	0.010
7	5.75	5.56	0.09721	0.0	0.00956	0.23	0.71	14.32	1891.10	2663.52	10.17	1625.74	0.004	0.048	0.010
TOT AVG CUM					0.0106		1.02		9455.50	13317.60		10.17			
								0.71	14.32						
								1.51							

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT
	mg/L	mg/L	mg/L	1/day	1/day	1/day	1/day	1/day	1/day	*	*	*	1/day	1/day	1/day	*	1/day	*	**	**	1/day	1/day	1/day
3	6.304	8.94	1.00	0.23	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	6.118	8.94	1.00	0.23	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	5.932	8.94	1.00	0.23	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	5.746	8.94	1.00	0.23	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	5.560	8.94	1.00	0.23	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C	RATE	0.99	0.22	0.05	0.00	0.03	0.05	0.00	0.73			0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
3	6.304	20.83	0.16	11.51	365.22	7.46	1.45	1.48	1.45	1.48	0.73	0.00	0.00	0.00	0.00	0.00	0.	0.00	
4	6.118	20.83	0.15	11.51	365.22	7.45	1.54	1.53	1.54	1.53	0.72	0.00	0.00	0.00	0.00	0.00	0.	0.00	
5	5.932	20.83	0.13	11.51	365.22	7.44	1.62	1.59	1.62	1.59	0.72	0.00	0.00	0.00	0.00	0.00	0.	0.00	
6	5.746	20.83	0.12	11.51	365.22	7.42	1.70	1.65	1.70	1.65	0.71	0.00	0.00	0.00	0.00	0.00	0.	0.00	
7	5.560	20.83	0.11	11.55	365.22	7.41	1.78	1.70	1.78	1.70	0.71	0.00	0.00	0.00	0.00	0.00	0.	0.00	

FINAL REPORT BT01
 REACH NO. 4 BT-09 to BT-10

LOWER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
8 EACH	UPR RCH	0.09721	20.83	0.11	11.55	365.22	7.41	1.78	1.70	1.78	1.70	0.71	0.00	0.00	0.00	0.00	0.00	0.00
	INCR	0.00334	20.83	0.21	50.80	362.93	5.00	1.24	1.40			0.89	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s		
8	5.56	5.36	0.10055	0.0	0.00781	0.29	0.88	14.63	2562.01	2911.37	12.87	1890.67	0.003	0.053	0.008		
9	5.36	5.16	0.10389	0.0	0.00807	0.29	0.88	14.63	2562.01	2911.37	12.87	2155.60	0.004	0.060	0.008		
10	5.16	4.96	0.10723	0.0	0.00833	0.28	0.88	14.63	2562.01	2911.37	12.87	2420.54	0.004	0.068	0.008		
11	4.96	4.76	0.11057	0.0	0.00859	0.27	0.88	14.63	2562.01	2911.37	12.87	2685.47	0.005	0.075	0.009		
12	4.76	4.57	0.11390	0.0	0.00885	0.26	0.88	14.63	2562.01	2911.37	12.87	2950.41	0.005	0.082	0.009		
13	4.57	4.37	0.11724	0.0	0.00911	0.25	0.88	14.63	2562.01	2911.37	12.87	3215.34	0.006	0.090	0.009		
14	4.37	4.17	0.12058	0.0	0.00937	0.25	0.88	14.63	2562.01	2911.37	12.87	3480.28	0.006	0.097	0.009		
15	4.17	3.97	0.12392	0.0	0.00963	0.24	0.88	14.63	2562.01	2911.37	12.87	3745.21	0.006	0.105	0.010		
16	3.97	3.77	0.12726	0.0	0.00988	0.23	0.88	14.63	2562.01	2911.37	12.87	4010.15	0.007	0.112	0.010		
17	3.77	3.57	0.13060	0.0	0.01014	0.23	0.88	14.63	2562.01	2911.37	12.87	4275.08	0.007	0.119	0.010		
TOT					2.58				25620.06	29113.70							
AVG					0.0089				0.88	14.63							
CUM					4.10							12.87					

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	ABOD#1 SETT 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d
8	5.361	8.94	0.81	0.21	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	5.162	8.94	0.81	0.21	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10	4.963	8.94	0.81	0.21	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11	4.764	8.94	0.81	0.21	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12	4.565	8.94	0.81	0.21	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13	4.366	8.94	0.81	0.21	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14	4.167	8.93	0.81	0.21	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15	3.968	8.93	0.81	0.21	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
16	3.769	8.93	0.81	0.21	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
17	3.570	8.93	0.81	0.21	0.05	0.00	0.03	0.05	0.00	0.77	0.77	0.77	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C	RATE	0.80	0.20	0.05	0.00	0.03	0.05	0.00	0.73			0.12	0.03	0.00	0.00	0.00			0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
8	5.361	20.83	0.12	12.86	365.14	7.31	1.70	1.67	1.70	1.67	0.72	0.00	0.00	0.00	0.00	0.00	0.	0.00	
9	5.162	20.83	0.13	14.08	365.07	7.24	1.63	1.64	1.63	1.64	0.73	0.00	0.00	0.00	0.00	0.00	0.	0.00	
10	4.963	20.83	0.14	15.23	365.00	7.19	1.56	1.62	1.56	1.62	0.74	0.00	0.00	0.00	0.00	0.00	0.	0.00	
11	4.764	20.83	0.15	16.30	364.94	7.16	1.51	1.59	1.51	1.59	0.75	0.00	0.00	0.00	0.00	0.00	0.	0.00	
12	4.565	20.83	0.16	17.31	364.88	7.13	1.46	1.57	1.46	1.57	0.76	0.00	0.00	0.00	0.00	0.00	0.	0.00	
13	4.366	20.83	0.17	18.27	364.83	7.11	1.42	1.55	1.42	1.55	0.77	0.00	0.00	0.00	0.00	0.00	0.	0.00	
14	4.167	20.83	0.18	19.17	364.77	7.10	1.38	1.53	1.38	1.53	0.78	0.00	0.00	0.00	0.00	0.00	0.	0.00	
15	3.968	20.83	0.19	20.02	364.72	7.09	1.34	1.51	1.34	1.51	0.78	0.00	0.00	0.00	0.00	0.00	0.	0.00	
16	3.769	20.83	0.20	20.82	364.65	7.08	1.31	1.50	1.31	1.50	0.79	0.00	0.00	0.00	0.00	0.00	0.	0.00	
17	3.570	20.83	0.21	21.43	364.21	7.06	1.29	1.48	1.29	1.48	0.79	0.00	0.00	0.00	0.00	0.00	0.	0.00	

FINAL REPORT BT01
 REACH NO. 5 BT-10 to BT-11
 LOWER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW deg C	TEMP ppt	SALN MG/L	CM-I IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A μg/L	COLI #/100mL	NCM MG/L
18	UPR RCH	0.13060	20.83	0.21	21.43	364.21	7.06	1.29	1.48	1.29	1.48	0.79	0.00	0.00	0.00	0.00	0.00
EACH	INCR	0.02750	20.83	0.16	12.80	334.30	5.00	1.21	1.36			0.85	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW m³/s	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
	km	km	m³/s		m/s	days	m	m	m³	m²	m²	m³	m/s	m²/s	m/s
18	3.57	3.36	0.15810	0.0	0.00504	0.48	1.66	18.90	6588.54	3969.00	31.37	4672.38	0.003	0.091	0.005
19	3.36	3.15	0.18560	0.0	0.00592	0.41	1.66	18.90	6588.54	3969.00	31.37	5069.67	0.004	0.099	0.006
20	3.15	2.94	0.21310	0.0	0.00679	0.36	1.66	18.90	6588.54	3969.00	31.37	5466.97	0.004	0.106	0.007
21	2.94	2.73	0.24060	0.0	0.00767	0.32	1.66	18.90	6588.54	3969.00	31.37	5864.27	0.004	0.114	0.008
22	2.73	2.52	0.26810	0.0	0.00855	0.28	1.66	18.90	6588.54	3969.00	31.37	6261.57	0.004	0.122	0.009
23	2.52	2.31	0.29560	0.0	0.00942	0.26	1.66	18.90	6588.54	3969.00	31.37	6658.86	0.005	0.129	0.009
24	2.31	2.10	0.32310	0.0	0.01030	0.24	1.66	18.90	6588.54	3969.00	31.37	7056.16	0.005	0.137	0.010
25	2.10	1.89	0.35060	0.0	0.01117	0.22	1.66	18.90	6588.54	3969.00	31.37	7453.46	0.005	0.145	0.011
TOT						2.56			52708.32	31752.00		31.37			
AVG						0.0076			1.66	18.90					
CUM						6.66									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM	ENDING	SAT	REAER	BOD#1	BOD#1	ABOD#1	BOD#2	BOD#2	ABOD#2	BKGD	FULL	CORR	ORGN	ORGN	NH3	NH3	DENIT	PO4	ALG	MAC	COLI	NCM	NCM
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NO.	DIST	D.O. mg/L	RATE 1/da	DECAY 1/da	SETT 1/da	DECAY 1/da	SETT 1/da	DECAY 1/da	SOD *	SOD *	SOD *	DECAY 1/da	SETT 1/da	DECAY 1/da	SRCE *	RATE 1/da	SRCE *	PROD **	PROD **	DECAY 1/da	DECAY 1/da	SETT 1/da	
18	3.360	8.93	0.43	0.43	0.05	0.00	0.03	0.05	0.00	0.28	0.28	0.28	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
19	3.150	8.93	0.43	0.43	0.05	0.00	0.03	0.05	0.00	0.28	0.28	0.28	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
20	2.940	8.93	0.43	0.43	0.05	0.00	0.03	0.05	0.00	0.28	0.28	0.28	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
21	2.730	8.93	0.43	0.43	0.05	0.00	0.03	0.05	0.00	0.28	0.28	0.28	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
22	2.520	8.93	0.43	0.43	0.05	0.00	0.03	0.05	0.00	0.28	0.28	0.28	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
23	2.310	8.94	0.43	0.43	0.05	0.00	0.03	0.05	0.00	0.28	0.28	0.28	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
24	2.100	8.94	0.43	0.43	0.05	0.00	0.03	0.05	0.00	0.28	0.28	0.28	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
25	1.890	8.94	0.43	0.43	0.05	0.00	0.03	0.05	0.00	0.28	0.28	0.28	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE	0.42	0.41	0.05	0.00	0.03	0.05	0.00	0.27				0.17	0.03	0.00	0.00	0.00		0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
18	3.360	20.83	0.20	19.94	359.04	6.73	1.28	1.46	1.28	1.46	0.77	0.00	0.00	0.00	0.00	0.00	0.	0.00	
19	3.150	20.83	0.20	18.90	355.42	6.53	1.28	1.44	1.28	1.44	0.76	0.00	0.00	0.00	0.00	0.00	0.	0.00	
20	2.940	20.83	0.19	18.12	352.73	6.41	1.28	1.43	1.28	1.43	0.75	0.00	0.00	0.00	0.00	0.00	0.	0.00	
21	2.730	20.83	0.19	17.52	350.64	6.32	1.28	1.42	1.28	1.42	0.74	0.00	0.00	0.00	0.00	0.00	0.	0.00	
22	2.520	20.83	0.18	17.04	348.98	6.26	1.28	1.41	1.28	1.41	0.74	0.00	0.00	0.00	0.00	0.00	0.	0.00	
23	2.310	20.83	0.17	16.65	347.63	6.22	1.28	1.41	1.28	1.41	0.74	0.00	0.00	0.00	0.00	0.00	0.	0.00	
24	2.100	20.83	0.17	16.32	346.50	6.18	1.28	1.40	1.28	1.40	0.73	0.00	0.00	0.00	0.00	0.00	0.	0.00	
25	1.890	20.83	0.16	16.06	345.60	6.17	1.28	1.40	1.28	1.40	0.73	0.00	0.00	0.00	0.00	0.00	0.	0.00	

FINAL REPORT BT01
 REACH NO. 6 BT-11 to BT-12

LOWER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A μg/L	COLI #/100mL	NCM MG/L
26	UPR RCH	0.35060	20.83	0.16	16.06	345.60	6.17	1.28	1.40	1.28	1.40	0.73	0.00	0.00	0.00	0.00	0.00	
EACH	INCR	-0.00042																

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
26	1.89	1.66	0.35018	0.0	0.01118	0.23	1.37	22.86	7077.91	5166.36	31.32	8071.35	0.006	0.134	0.011
27	1.66	1.44	0.34976	0.0	0.01117	0.23	1.37	22.86	7077.91	5166.36	31.32	8689.25	0.006	0.144	0.011
28	1.44	1.21	0.34934	0.0	0.01115	0.23	1.37	22.86	7077.91	5166.36	31.32	9307.15	0.007	0.155	0.011

29	1.21	0.99	0.34892	0.0	0.01114	0.23	1.37	22.86	7077.91	5166.36	31.32	9925.04	0.007	0.165	0.011
30	0.99	0.76	0.34850	0.0	0.01113	0.24	1.37	22.86	7077.91	5166.36	31.32	10542.94	0.007	0.175	0.011
TOT						1.17			35389.57	25831.80					
AVG						0.0112			1.37	22.86					
CUM						7.83						31.32			

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/day	BOD#1 DECAY 1/day	BOD#1 SETT 1/day	ABOD#1 DECAY 1/day	BOD#2 DECAY 1/day	BOD#2 SETT 1/day	ABOD#2 DECAY 1/day	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY 1/day	ORGN SETT 1/day	NH3 DECAY 1/day	NH3 SRCE *	DENIT RATE 1/day	PO4 SRCE *	ALG PROD	MAC PROD	COLI DECAY 1/day	NCM DECAY 1/day	NCM SETT 1/day	
26	1.664	8.94	0.52	0.32	0.05	0.00	0.03	0.05	0.00	0.03	0.03	0.03	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
27	1.438	8.93	0.52	0.32	0.05	0.00	0.03	0.05	0.00	0.03	0.03	0.03	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
28	1.212	8.93	0.52	0.32	0.05	0.00	0.03	0.05	0.00	0.03	0.03	0.03	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
29	0.986	8.93	0.52	0.32	0.05	0.00	0.03	0.05	0.00	0.03	0.03	0.03	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
30	0.760	8.93	0.52	0.32	0.05	0.00	0.03	0.05	0.00	0.03	0.03	0.03	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE		0.51	0.31	0.05	0.00	0.03	0.05	0.00	0.03		0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
26	1.664	20.83	0.17	16.06	345.60	6.33	1.35	1.41	1.35	1.41	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
27	1.438	20.83	0.18	16.06	345.60	6.48	1.42	1.42	1.42	1.42	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
28	1.212	20.83	0.18	16.06	345.60	6.60	1.48	1.42	1.48	1.42	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
29	0.986	20.83	0.19	16.06	345.60	6.70	1.54	1.43	1.54	1.43	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00
30	0.760	20.83	0.20	16.06	345.60	6.79	1.59	1.44	1.59	1.44	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 7 BT-12 to ICWW

LOWER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
31	UPR RCH	0.34850	20.83	0.20	16.06	345.60	6.79	1.59	1.44	1.59	1.44	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EACH	INCR	-0.00035																	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
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	km	km	m³/s	m/s	days	m	m	m³	m²	m²	m³	m/s	m²/s	m/s	
31	0.76	0.57	0.34815	0.0	0.01112	0.20	1.37	22.86	5950.46	4343.40	31.32	11062.41	0.008	0.184	0.011
32	0.57	0.38	0.34780	0.0	0.01111	0.20	1.37	22.86	5950.46	4343.40	31.32	11581.88	0.008	0.192	0.012
33	0.38	0.19	0.34744	0.0	0.01109	0.20	1.37	22.86	5950.46	4343.40	31.32	12101.35	0.009	0.201	0.012
34	0.19	0.00	0.34709	0.0	0.01108	0.20	1.37	22.86	5950.46	4343.40	31.32	12620.82	0.009	0.210	0.012
TOT					0.79			23801.83		17373.60					
AVG					0.0111			1.37	22.86			31.32			
CUM					8.63										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d	
31	0.570	8.94	0.52	0.32	0.05	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
32	0.380	8.94	0.52	0.32	0.05	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
33	0.190	8.94	0.52	0.32	0.05	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
34	0.000	8.94	0.52	0.32	0.05	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE	0.51	0.31	0.05	0.00	0.03	0.05	0.00	0.00				0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
31	0.570	20.83	0.17	16.06	345.59	6.87	1.64	1.41	1.64	1.41	0.98	0.00	0.00	0.00	0.00	0.00	0.	0.00	
32	0.380	20.83	0.15	16.06	345.51	6.94	1.68	1.39	1.68	1.39	0.96	0.00	0.00	0.00	0.00	0.00	0.	0.00	
33	0.190	20.83	0.12	16.10	344.50	6.97	1.75	1.40	1.75	1.40	0.97	0.00	0.00	0.00	0.00	0.00	0.	0.00	
34	0.000	20.83	0.10	16.47	333.22	6.71	2.14	1.69	2.14	1.69	1.22	0.00	0.00	0.00	0.00	0.00	0.	0.00	

LOWER BAYOU TERREBONNE WINTER PROJECTION MODEL 10/23/07

DOWNTSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg Depth	Avg Width	Flow at EOR	Average VELO	Avg Depth	Avg Width
1	Weir #3 to Bayou Cane	6.93	6.72	0.21	0.23	0.11464	0.01053	0.760	14.32	4.048	0.035	2.494	46.98
2	Bayou Cane to BT-08	6.72	6.49	0.23	0.27	0.12479	0.01002	0.870	14.32	4.406	0.033	2.854	46.98
3	BT-08 to BT-09	6.49	5.56	0.93	1.02	0.09721	0.01059	0.710	14.32	3.432	0.035	2.330	46.98
4	BT-09 to BT-10	5.56	3.57	1.99	2.58	0.13060	0.00891	0.880	14.63	4.611	0.029	2.887	48.00
5	BT-10 to BT-11	3.57	1.89	1.68	2.56	0.35060	0.00758	1.660	18.90	12.380	0.025	5.446	62.01
6	BT-11 to BT-12	1.89	0.76	1.13	1.17	0.34850	0.01115	1.370	22.86	12.306	0.037	4.495	75.00

7 BT-12 to ICWW 0.76 0.00 0.76 0.79 0.34709 0.01110 1.370 22.86 12.256 0.036 4.495 75.00

.....EXECUTION COMPLETED

**APPENDIX F4 – WINTER PROJECTION WATER QUALITY INPUT
JUSTIFICATIONS (Lower Terrebonne Model)**

WATER QUALITY INPUT DATA AND JUSTIFICATION

BAYOU TERREBONNE SUBSEGMENT 120301

WINTER PROJECTION (Lower Terrebonne Model)

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)			
DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
OCEAN EXCHANGE RATIO	1		Tidal impacts considered to be significant
TIDE HEIGHT	0.13	meters	Site ICWW (located in Intercoastal Waterway)
MAXIMUM ITERATION LIMIT	200		Adjusted for convergence
EFFECTIVE BOD DUE TO ALGAE	0.01	mg/L BOD /ug chl a/ day	Calibration
ALGAE OXYGEN PRODUCTION	0	mg O / ug chl a / day	Turned off for simulation
HYDRAULIC CALCULATION METHOD	2		Widths and depths

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)						
DATA TYPE 8 - REACH IDENTIFICATION DATA						
Reach	ID	Name	Upstream River Kilometer	Downstream River Kilometer	Element Length, km	Data Source
1	BT	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	6.93	6.72	0.2100	GIS and survey data
2	BT	Lower Bayou Terrebonne, Bayou Cane to BT08	6.72	6.49	0.2300	Same as reach 1
3	BT	Lower Bayou Terrebonne, BT08 to BT09	6.49	5.56	0.1860	Same as reach 1
4	BT	Lower Bayou Terrebonne, BT09 to BT10	5.56	3.57	0.1990	Same as reach 1
5	BT	Lower Bayou Terrebonne, BT10 to BT11	3.57	1.89	0.2100	Same as reach 1
6	BT	Lower Bayou Terrebonne, BT11 to BT12	1.89	0.76	0.2260	Same as reach 1
7	BT	Lower Bayou Terrebonne, BT12 to ICWW	0.76	0.00	0.1900	Same as reach 1

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)													
DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS													
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	0	0	14.32	Site BT07	0	0	0.76	Site BT07	0	Best professional judgement and knowledge of the area - value used in all reaches	0.03	Environmental Engineering, P.E. Examination Guide and Handbook by C. King, p. 113
2	Lower Bayou Terrebonne, Bayou Cane to BT08	0	0	14.32	Site BT08	0	0	0.87	Site BT08	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1
3	Lower Bayou Terrebonne, BT08 to BT09	0	0	14.32	Site BT09	0	0	0.71	Site BT09	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1
4	Lower Bayou Terrebonne, BT09 to BT10	0	0	14.63	Site BT10	0	0	0.88	Site BT10	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1
5	Lower Bayou Terrebonne, BT10 to	0	0	18.90	Site BT11	0	0	1.66	Site BT11	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)														
DATA TYPE 9 - ADVective HYDRAULIC COEFFICIENTS														
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source	Slope (unitless)	Data Source	Manning's "n"	Data Source	
	BT11													
6	Lower Bayou Terrebonne, BT11 to BT12	0	0	22.86	Site BT12	0	0	1.37	Site BT12	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	
7	Lower Bayou Terrebonne, BT12 to ICWW	0	0	22.86	Site BT12	0	0	1.37	Site BT12	0	Same as Same as Reach 1	0.03	Same as Same as Reach 1	

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)									
DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS									
Reach	Name	Tidal Range	Data Source	"a"	Data Source	"b"	"c"	"d"	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	0.69	Ratio of the tidal amplitude at BT07 to the amplitude at ICWW	18.00	Calibration	0.833	0.00	1.00	Constant values used for advective dispersion
2	Lower Bayou Terrebonne, Bayou Cane to BT08	0.66	Average of the values used in reaches 1 and 3	18.00	Same as reach 1	0.833	0.00	1.00	Same as reach 1
3	Lower Bayou Terrebonne, BT08 to BT09	0.62	Ratio of the tidal amplitude at BT09 to the amplitude at ICWW	18.00	Same as reach 1	0.833	0.00	1.00	Same as reach 1
4	Lower Bayou Terrebonne, BT09 to BT10	0.70	Average of the values used in reaches 3 and 5	18.00	Same as reach 1	0.833	0.00	1.00	Same as reach 1
5	Lower Bayou Terrebonne, BT10 to BT11	0.77	Ratio of the tidal amplitude at BT10 to the amplitude at ICWW	18.00	Same as reach 1	0.833	0.00	1.00	Same as reach 1
6	Lower Bayou Terrebonne, BT11 to BT12	0.92	Ratio of the tidal amplitude at BT12 to the amplitude at ICWW	18.00	Same as reach 1	0.833	0.00	1.00	Same as reach 1
7	Lower Bayou Terrebonne, BT12 to ICWW	0.92	Ratio of the tidal amplitude at BT12 to the amplitude at ICWW	18.00	Same as reach 1	0.833	0.00	1.00	Same as reach 1

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)							
DATA TYPE 11 - INITIAL CONDITIONS							
Reach	Name	Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chl a	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	20.83	0.20	5.0	Temp set to winter 90 th percentile for WQN site 110; DO set to criteria; salinity retained from site BT07	0.0	Assumed that chl a would be reduced to insignificant levels with reduction in nutrients
2	Lower Bayou Terrebonne, Bayou Cane to BT08	20.83	0.20	5.0	Temp and DO sources same as reach 1; salinity retained from BT07 continuous monitor data	0.0	Same as reach 1
3	Lower Bayou Terrebonne, BT08 to BT09	20.83	0.17	5.0	Temp and DO sources same as reach 1; salinity retained from BT08 insitu data	0.0	Same as reach 1
4	Lower Bayou Terrebonne, BT09 to BT10	20.83	0.11	5.0	Temp and DO sources same as reach 1; salinity retained from site BT09 continuous monitor data	0.0	Same as reach 1
5	Lower Bayou Terrebonne, BT10 to BT11	20.83	0.21	5.0	Temp and DO sources same as reach 1; salinity retained from site BT10 continuous monitor data	0.0	Same as reach 1

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)							
DATA TYPE 11 - INITIAL CONDITIONS							
Reach	Name	Temp, deg C	Sal, ppt	DO, mg/l	Data Source	Chl a	Data Source
6	Lower Bayou Terrebonne, BT11 to BT12	20.83	0.16	5.0	Temp and DO sources same as reach 1; salinity retained from site BT11 insitu data	0.0	Same as reach 1
7	Lower Bayou Terrebonne, BT12 to ICWW	20.83	0.20	5.0	Temp and DO sources same as reach 1; salinity retained from site BT12 continuous monitor data	0.0	Same as reach 1

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)																			
DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS																			
REACH	NAME	K ₂ OPT	K ₂ "A"	K ₂ "B"	K ₂ "C"	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source	Aerobic BOD1 Dec Rate (1/day)	Anearobic BOD1 Dec Rate (1/day)	Aerobic BOD2 Dec Rate (1/day)	Anearobic BOD2 Dec Rate (1/day)	Data Source	BOD1 SETT RATE (1/day)	BOD2 SETT RATE (1/day)	Data Source	SETTLED BOD1 CONV TO SOD	SETTLED BOD2 CONV TO SOD	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	19	0.0	0	0	Owens et. al. 1964	0.78	SOD based 70% reduction in nonpoint load	0.31		0.03		Site BT07	0.05	0.05	Calibration	0	0	BOD not converted to SOD
2	Lower Bayou Terrebonne, Bayou Cane to BT08	19	0.0	0	0	Same as reach1	0.78	Same as reach1	0.24		0.03		Site BT08	0.05	0.05	Same as reach1	0	0	Same as reach1
3	Lower Bayou Terrebonne, BT08 to BT09	19	0.0	0	0	Same as reach1	0.86	Same as reach1	0.22		0.03		Site BT09	0.05	0.05	Same as reach1	0	0	Same as reach1
4	Lower Bayou Terrebonne, BT09 to BT10	19	0.0	0	0	Same as reach1	0.86	Same as reach1	0.20		0.03		Site BT10	0.05	0.05	Same as reach1	0	0	Same as reach1
5	Lower Bayou Terrebonne, BT10 to BT11	19	0.0	0	0	Same as reach1	0.31	Same as reach1	0.41		0.03		Site BT11	0.05	0.05	Same as reach1	0	0	Same as reach1
6	Lower Bayou Terrebonne, BT11 to BT12	19	0.0	0	0	Same as reach1	0.04	Same as reach1	0.31		0.03		Site BT12	0.05	0.05	Same as reach1	0	0	Same as reach1
7	Lower Bayou Terrebonne, BT12 to ICWW	19	0.0	0	0	Same as reach1	0.0	Same as reach1	0.31		0.03		Site BT12	0.05	0.05	Same as reach1	0	0	Same as reach1

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)				
DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS				
Reach	Name	NBOD decay rate, 1/day	NBOD settling rate, 1/day	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	0.09	0.025	Site BT07; Calibration
2	Lower Bayou Terrebonne, Bayou Cane to BT08	0.12	0.025	Site BT08; Calibration
3	Lower Bayou Terrebonne, BT08 to BT09	0.09	0.025	Site BT09; Calibration
4	Lower Bayou Terrebonne, BT09 to BT10	0.12	0.025	Site BT04; Calibration
5	Lower Bayou Terrebonne, BT10 to BT11	0.17	0.025	Site BT11; Calibration
6	Lower Bayou Terrebonne, BT11 to BT12	0.16	0.025	Site BT12; Calibration
7	Lower Bayou Terrebonne, BT12 to ICWW	0.10	0.025	Site ICWW; Calibration

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)									
DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Ouflow, cms	Incr. Inflow, cms	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I	Cons. Mat II	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane		0.00926	Retained from calibration model	20.83	0.20	11.6	373.13	Winter 90 th percentile temperature for WQN site 110; WQ data based on 24-hr continuous monitor data, insitu data, and lab data for Site BT07
2	Lower Bayou Terrebonne, Bayou Cane to BT08		0.01015	Same as reach 1	20.83	0.13	10.5	272.4	Temp source same as reach 1; WQ data based on insitu data and lab data for Site BC01 (residual influence of Bayou Cane)
3	Lower Bayou Terrebonne, BT08 to BT09	-0.02758		Same as reach 1					WQ data not needed for outflow
4	Lower Bayou Terrebonne, BT09 to BT10		0.03339	Same as reach 1	20.83	0.21	50.8	362.93	Temp source same as reach 1; WQ data based on 24-hr continuous monitor data, insitu data, and lab data for Site BT10

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)									
DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Ouflow, cms	Incr. Inflow, cms	Data Source	Temp, deg C	Sal., ppt	Cons. Mat I	Cons. Mat II	Data Source
5	Lower Bayou Terrebonne, BT10 to BT11		0.22	Same as reach1	20.83	0.16	12.8	334.30	Temp source same as reach 1; WQ data based on insitu data and lab data for Site BT11
6	Lower Bayou Terrebonne, BT11 to BT12	-0.00210		Same as reach1					Same as reach 3
7	Lower Bayou Terrebonne, BT12 to ICWW	-0.00141		Same as reach1					Same as reach 3

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)									
DATA TYPES 17 - INCREMENTAL DATA FOR DO, BOD, AND NITROGEN									
Reach	Reach Name	DO, mg/l	UCBOD 1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH ³ -N, mg/L	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	5.0	1.80		0.81			1.58	DO set to criteria; BOD based on 70% reduction of nonpoint loads
2	Lower Bayou Terrebonne, Bayou Cane to BT08	5.0	1.48		0.71			1.72	DO set to criteria; BOD based on 70% reduction of nonpoint loads
3	Lower Bayou Terrebonne, BT08 to BT09								WQ data not needed for outflow
4	Lower Bayou Terrebonne, BT09 to BT10	5.0	1.45		1.03			1.63	DO set to criteria; BOD based on 70% reduction of nonpoint loads
5	Lower Bayou Terrebonne, BT10 to BT11	5.0	1.41		0.99			1.58	DO set to criteria; BOD based on 70% reduction of nonpoint loads
6	Lower Bayou Terrebonne, BT11 to BT12								Same as reach 3

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)									
DATA TYPES 17 - INCREMENTAL DATA FOR DO, BOD, AND NITROGEN									
Reach	Reach Name	DO, mg/l	UCBOD 1, mg/l	ORG-N, mg/l	NBOD, mg/L	NH ³ -N, mg/L	NO ₂ +NO ₃ , mg/L	UCBOD2, mg/l	Data Source
7	Lower Bayou Terrebonne, BT12 to ICWW								Same as reach 3

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)						
DATA TYPE 19 - NONPOINT SOURCES						
Reach	Reach Name	Length of Reach, km	UCBOD1 (kg/day)	NBOD (kg/day)	UCBOD2 (kg/day)	Data Source
1	Lower Bayou Terrebonne, Weir # 3 to Bayou Cane	0.21	0.78	0.51	0.58	Based on 70% reduction in nonpoint load
2	Lower Bayou Terrebonne, Bayou Cane to BT08	0.23	0.19	0.74	0.78	Same as reach 1
3	Lower Bayou Terrebonne, BT08 to BT09	0.93	9.72	0.62	4.67	Same as reach 1
4	Lower Bayou Terrebonne, BT09 to BT10	1.99	6.61	3.89	1.94	Same as reach 1
5	Lower Bayou Terrebonne, BT10 to BT11	1.68	38.89	5.44	7.00	Same as reach 1
6	Lower Bayou Terrebonne, BT11 to BT12	1.13	33.83	16.33	6.22	Same as reach 1
7	Lower Bayou Terrebonne, BT12 to ICWW	0.76	23.33	0.78	0.0	Same as reach 1

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)								
DATA TYPES 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES								
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms	Temp, deg C	Sal, ppt	Conservative Material I	Conservative Material II	Data Source
Reach 1 Headwaters of Lower Bayou Terrebonne downstream of weir # 3	1	Not used	0.10538	20.83	0.2	11.6	373.13	Critical tidal flow determined by tidal prism calculation; Temp source based on winter 90 th percentile temperature at WQN site 110; Salinity and conductivity based on 24-hr average continuous monitor data; Chloride based on lab data for Site BT07

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)					
DATA TYPES 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN					
Headwater Name	Dissolved Oxygen, mg/L	UCBOD1, mg/l	NBOD, mg/l	UCBOD2, mg/l	Data Source
Reach 1 Headwaters of Lower Bayou Terrebonne downstream of weir # 3	8.05	1.80	0.81	1.58	Headwater DO value set to 90 percent of saturation DO concentration; UCBOD1, UCBOD2, and NBOD values based on 70% reduction of nonpoint load

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)		
DATA TYPES 22 - HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES		
Headwater Name	Chlorophyll a, ug/L	Date Source
Reach 1 Headwaters of Lower Bayou Terrebonne downstream of weir # 3	0.0	Assumed that chl a would be reduced to insignificant levels with reduction in nutrients

Bayou Terrebonne 120301 Winter Justifications (LowerTerrebonne Model)			
DATA TYPES 27 - LOWER BOUNDARY CONDITIONS			
Survey Site Name: ICWW (for Lower Terrebonne Model)			
Parameter	Value	Units	Data Source
TEMPERATURE	20.83	degrees Celsius	Winter 90 th percentile temperature for WQN site 110
SALINITY	0.10	ppt	Site ICWW continuous monitor data (24-hour average)
CONSERVATIVE MATERIAL I	18.5	mg/L	Site ICWW lab data
CONSERVATIVE MATERIAL II	270.97	mg/L	Site ICWW continuous monitor data (24-hour average)
DISSOLVED OXYGEN	5.0	mg/L	DO set to criteria
BIOCHEMICAL OXYGEN DEMAND 1	4.21	mg/L	Site ICWW BOD data
BIOCHEMICAL OXYGEN DEMAND 2	3.45	mg/L	Site ICWW BOD data
NBOD	2.73	mg/L	Site ICWW BOD data
CHLOROPHYLL A	0.0	ug/L	Assumed that chl a would be reduced to insignificant levels with reduction in nutrients

APPENDIX G – PROJECTION MODEL DEVELOPMENT

APPENDIX G1 – SUMMER LOADING

APPENDIX G2 – WINTER LOADING

APPENDIX G3 – CRITICAL TEMPERATURE AND DO ANALYSIS RESULTS

APPENDIX G1 – SUMMER LOADING

Summer Projection, Non-Point Benthic Load Input and TMDL Calculations:

Modeled stream or water body: **BAYOU TERREBONNE (SUBSEGMENT 120301)**

Shaded cells are input values for calculations.

Values to be used in the projection models.

Reach Number and Description	Back-ground Benthic Load	Back-ground percentage reduction	Back-ground Benthic Load adjusted for % reduction	Proj. Model Avg. Reach Width	Proj. Temp.	Percentage Reduction of man-made sources	Man-Made Calibration Benthic Load adjusted for % reduction (Reduced CBL)	Total Calibration Benthic Load (TCBL) adjusted for % reduction (Reduced TCBL)	Projection Model Equivalents		Projected Model Load						
									Reduced TCBL adjusted for MOS	Non-Point UCBOD	Non-Point UNBOD	SOD @ 20°C	Non-Point UCBOD1 INPUTS	Non-Point UCBOD2 INPUTS	Total Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS	
	gm O ₂ / [(m ²)(day)]	%	gm O ₂ / [(m ²)(day)]	Meters	(deg Celcius)	%	gm O ₂ / [(m ²)(day)]	gm O ₂ / [(m ²)(day)]	gm O ₂ / [(m ²)(day)]	gm O ₂ / [(m ²)(day)]	gm O ₂ / [(m ²)(day)]	(kg/day)	(kg/day)	(kg/day)	(kg/day)		
	F1	F2	F = F1 x (1-F2)	G	H	I	J, (note 2)	K = F + J	L, (note 3)	M = (L)(A / D)	N = (L)(B / D)	O = (L)(C / D)	P1 = (M)(G)(E)(A1/A3)	P2 = (M)(G)(E)(A2/A3)	P3 = (E)(G)(M)	Q3 = (E)(G)(N)	
Bayou Terrebonne (Headwaters to Weir #3)																	
UPPER BAYOU TERREBONNE REACH1: BT01 & BT02	0.00	0%	0.00	16.46	30.31	80.0%	0.70	0.70	0.78	0.105	0.009	0.67	4.11	1.78	5.89	0.49	
UPPER BAYOU TERREBONNE REACH 2: BT02 & BT03	0.00	0%	0.00	17.68	30.31	80.0%	0.73	0.73	0.81	0.160	0.028	0.62	9.11	2.89	12.00	2.07	
UPPER BAYOU TERREBONNE REACH 3: BT03 TO GLASS SHOP WEIR	0.00	0%	0.00	17.68	30.31	80.0%	0.62	0.62	0.69	0.136	0.000	0.56	4.89	0.78	5.67	0.00	
UPPER BAYOU TERREBONNE REACH 4: GLASS SHOP WEIR TO COTEAU WEIR	0.00	0%	0.00	16.46	30.31	80.0%	0.65	0.65	0.73	0.364	0.051	0.31	12.00	3.78	15.78	2.22	
UPPER BAYOU TERREBONNE REACH 5: COTEAU WEIR TO SONIC WEIR (WEIR #3)	0.00	0%	0.00	17.68	30.31	80.0%	0.75	0.75	0.83	0.171	0.008	0.66	5.33	2.18	7.51	0.33	
Bayou Terrebonne (Weir #3 to ICWW)																	
LOWER BAYOU TERREBONNE REACH 1: WEIR # 3 TO BAYOU CANE	0.00	0%	0.00	14.32	30.31	65.0%	1.26	1.26	1.40	0.453	0.168	0.78	0.78	0.58	1.36	0.51	
LOWER BAYOU TERREBONNE REACH 2: BAYOU CANE TO BT08	0.00	0%	0.00	14.32	30.31	65.0%	1.17	1.17	1.30	0.295	0.224	0.78	0.19	0.78	0.97	0.74	
LOWER BAYOU TERREBONNE REACH 3: BT08 TO BT09	0.00	0%	0.00	14.32	30.31	65.0%	1.78	1.78	1.98	1.080	0.047	0.86	9.72	4.67	14.39	0.62	
LOWER BAYOU TERREBONNE REACH 4: BT09 TO BT 10	0.00	0%	0.00	14.63	30.31	65.0%	1.15	1.15	1.28	0.294	0.134	0.86	6.61	1.94	8.56	3.89	
LOWER BAYOU TERREBONNE REACH 5: BT10 TO BT11	0.00	0%	0.00	18.90	30.31	65.0%	1.74	1.74	1.93	1.445	0.171	0.31	38.89	7.00	45.89	5.44	
LOWER BAYOU TERREBONNE REACH 6: BT11 TO BT12	0.00	0%	0.00	22.86	30.31	65.0%	2.00	2.00	2.22	1.551	0.632	0.04	33.83	6.22	40.06	16.33	
LOWER BAYOU TERREBONNE REACH 7: BT12 TO ICWW	0.00	0%	0.00	22.86	30.31	65.0%	1.25	1.25	1.39	1.343	0.045	0.00	23.33	0.00	23.33	0.78	
Sub-Total								13.81					148.81	32.59	181.40	33.42	
Notes:							Note 1. Data was calculated in and brought from the Calibration worksheet dataset. Note 2. J = [(1 - I) x (D - F1)] Note 3. L = [(K - F) / (1 - MOS) + F] Note 4. R = E x G x O x 1.065 (H-20) Note 5. X = U x 1.065 (H-20) Note 6. AE = E x G x AB x 1.065 (H-20)										
EXPLICIT MARGIN OF SAFETY:																	
UPPER BAYOU TERREBONNE MOS (%) =							10%										
LOWER BAYOU TERREBONNE MOS (%) =							10%										
Note: Margin of Safety applies only to Man-Made loads, not Background loads.																	

Summer TMDL Calculations for Point Source loads:

BAYOU TERREBONNE (SUBSEGMENT 120301)

Input data into the shaded cells.

Point Source Loading Calculations

Pt. Source / Facility Description and Reach #	Receiving Stream	Included in the Projection Model (Yes/No)	Anticipated/design flow (cms)	Flow with MOS (cms)	Proposed Permit Limits			UCBOD				UNBOD				Sub-total of Point Source Loads		
					CBOD ₅ (mg/l)	NH ₃ N (mg/l)	MOS (%)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/MOS Load (kg/day)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/MOS Load (kg/day)	Loads (kg/day)	WLA (kg/day)	Reserve/MOS (kg/day)
			A	A1 = A/(1-D)	B	C	D	E = 2.3 x B	F = (86.4)(A1)(E)	G = (1-D) x F	H = (D)(F)	I = 4.3 x C	J = (86.4)(A1)(I)	K = (1-D) x J	L = (D)(J)	F + J	G + K	H + L
Schriever School	Bayou Terrebonne	Yes	0.001094	0.0013675	30.0	15.0	20%	69.0	8	7	2	64.5	8	6	2	16	13	3
SUB-TOTAL Loads								8.15	6.52	1.63		7.62	6.10	1.52	15.77	12.62	3.15	
(1) - Load(kg/day) = 86.4 x Ultimate Conc.(mg/l) x Modeled Flow(cms) (2) - [UCBOD conc. = CBOD ₅ (mg/l) x 2.3] and [UNBOD conc. = NH ₃ N(mg/l) x 4.3]																		

Summer TMDL calculations and Projection model calculations for Headwater / Tributary loads:																			
BAYOU TERREBONNE (SUBSEGMENT 120301)										Shaded cells are input values for calculations. Values to be used in the projection models.									
Headwater / Tributary Load Determinations																			
Headwater / Tributary Description and Reach #	Seasonal Critical flow (cms)	UCBOD1 (mg/l)	UCBOD2 (mg/l)	Total UCBOD (mg/l)	Total UNBOD (mg/l)	UCBOD1 (kg/day)	UCBOD2 (kg/day)	UCBOD (kg/day)	UNBOD (kg/day)	Background UCBOD1 conc. (mg/l)	Background UCBOD2 conc. (mg/l)	Background UCBOD conc. (mg/l)	Background UNBOD conc. (mg/l)	Background % Reduction	Percent reduction of Man-Made loads	Projection UCBOD1 input conc. (mg/l)	Projection UCBOD2 input conc. (mg/l)	Projection UCBOD input conc. (mg/l)	Projection UNBOD input conc. (mg/l)
	A	B1	B2	B3	C3=(C1+C2)(4.3)	D1=(86.4)(A)(B1)	D2=(86.4)(A)(B2)	D3 = (86.4)(A)(B3)	E3 = (86.4)(A)(C3)	F1	F2	F3	G3	H	K	N1/[(A)(86.4)]	N2/[(A)(86.4)]	N3/[(A)(86.4)]	(O3)/[(A)(86.4)]
Bayou Terrebonne (Headwaters to Weir #3)																			
UPPER BAYOU TERREBONNE HEADWATER AT BT01	0.002830	12.13	12.40	24.53	5.15	2.97	3.03	6.00	1.26					0%	80%	2.70	2.76	5.45	1.14
Bayou Terrebonne (Weir #3 to ICWW)																			
LOWER BAYOU TERREBONNE HEADWATER ABOVE WEIR # 3	0.105380	4.62	4.07	8.69	2.08	42.06	37.06	79.12	18.94					0%	65%	1.80	1.58	3.38	0.81
SUB-TOTAL TMDL LOADING																			
EXPLICIT MARGIN OF SAFETY:																			
R BAYOU TERREBONNE MARGIN OF SAFETY (MOS) (%) = 10%																			
R BAYOU TERREBONNE MARGIN OF SAFETY (MOS) (%) = 10%																			
Note: Margin of Safety applies only to Man-Made loads, not Background loads.																			

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

Summer TMDL calculations and Projection model calculations for Incremental loads:																												
BAYOU TERREBONNE (SUBSEGMENT 120301)															Projection Model Input determinations:													
Reach Description and #	Calibration Load determinations:														Projection Model Input determinations:													
	Projection Flow (cms)	Calib UCBOD1 conc. (mg/l)	Calib UCBOD2 conc. (mg/l)	Calib Total UCBOD conc. (mg/l)	Unadjusted UCBOD1 (kg/day)	Unadjusted UCBOD2 (kg/day)	Unadjusted Total UCBOD (kg/day)	Calib. Total UNBOD conc. (mg/l)	Unadjusted Total UNBOD conc. (mg/l)	Background Conc. UCBOD1 (mg/l)	Background Conc. UCBOD2 (mg/l)	Background Conc. Total UCBOD (mg/l)	Background Conc. Total UNBOD (mg/l)	Background % Reduction	Background Load UCBOD (kg/day)	Background Load UNBOD (kg/day)	Background Load Total UCBOD (kg/day)	Background Load Total UNBOD (kg/day)	Projection UCBOD1 conc. (mg/l)	Projection UCBOD2 conc. (mg/l)	Projection Total UNBOD conc. (mg/l)	Proj. UCBOD1	Proj. UCBOD2	Proj. Total UNBOD MOS load (kg/day)	Proj. Total MOS load (kg/day)	Sub-total UNBOD MOS load (kg/day)	Sub-total LA load (kg/day)	
	A	B1	B2	B3 = B1 + B2	C1 = (86.4)(A)(B1)	C2 = (86.4)(A)(B2)	G3 = C1 + C2	D3	E3 = (86.4)(A)(D3)	F1	F2	F3 = F1 + F2	G3	H, Note I	I1 = (I - H)(86.4)(A)(F1)	I2 = (I - H)(86.4)(A)(F2)	I3 = (I - H)(86.4)(A)(F3)	N1 / (86.4)(A)	N2 / (86.4)(A)	N3 / [(A)(86.4)]	O3 / [(A)(86.4)]	P1 = N1 - L1	P2 = N2 - L2	P3 = N3 - L3	Q3 = O3 - M3	P1-P2-Q3	L1-L2-M3	
Bayou Terrebonne (Headwaters to Weir #3)																												
UPPER BAYOU TERREBONNE REACH 1: BT01 & BT02	0.01896	4.10	4.47	8.57	6.72	7.32	14.04	2.68	4.39	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.91	0.99	1.90	0.60	0	0	0	0	0	4
UPPER BAYOU TERREBONNE REACH 2: BT02 & BT03	0.02364	3.60	4.78	8.38	7.35	9.76	17.12	3.04	6.21	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.80	1.06	1.86	0.68	0.16	0.22	0	0	1	5
UPPER BAYOU TERREBONNE REACH 3: BT03 TO GLASS SHOP WEIR	0.01310	3.52	3.89	7.41	3.98	4.40	8.39	1.27	1.44	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.78	0.86	1.65	0.28	0.09	0.10	0	0	0	2
UPPER BAYOU TERREBONNE REACH 4: GLASS SHOP WEIR TO COTEAU WEIR	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	
UPPER BAYOU TERREBONNE REACH 5: COTEAU WEIR TO SONIC WEIR (WEIR #3)	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	
Bayou Terrebonne (Weir #3 to ICWW)																												
LOWER BAYOU TERREBONNE REACH 1: WEIR #3 TO BAYOU CANE	0.00926	4.62	4.07	8.69	3.70	3.26	6.95	2.08	1.66	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	1.80	1.58	3.58	0.81	0.14	0.13	0	0	0	3
LOWER BAYOU TERREBONNE REACH 2: BAYOU CANE TO BT05	0.00105	3.81	4.42	8.23	3.34	3.88	7.22	1.83	1.60	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	1.48	1.72	3.20	0.71	0.13	0.15	0	0	0	3
LOWER BAYOU TERREBONNE REACH 3: BT05 TO BT09	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	
LOWER BAYOU TERREBONNE REACH 4: BT09 TO BT10	0.03339	3.73	4.20	7.93	10.76	12.12	22.88	2.66	7.67	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	1.45	1.63	3.08	1.03	0.42	0.47	1	0	1	11
LOWER BAYOU TERREBONNE REACH 5: BT10 TO BT11	0.22000	3.63	4.07	7.70	69.00	77.36	146.56	2.54	48.28	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	1.41	1.58	2.99	0.99	2.68	3.01	6	2	8	68
LOWER BAYOU TERREBONNE REACH 6: BT11 TO BT12	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	
LOWER BAYOU TERREBONNE REACH 7: BT12 TO ICWW	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	
Sub-Total benthic loading															0.00	0.00	0.00	0.00							8.01	2.57	10.59	95.24
Note 1: The percentage reduction values are taken from the "Non-Point Benthic Load Input and TMDL Calculations" worksheet.																												
EXPLICIT MARGINS:																												
UPPER BAYOU TERREBONNE MARGIN OF SAFETY (MOS, %) = (MOG + MOU) = 10%																												
LOWER BAYOU TERREBONNE MARGIN OF SAFETY (MOS, %) = (MOG + MOU) = 10%																												
Note: Margin of Safety applies only to Man-Made loads, not Background loads.																												

APPENDIX G2 – WINTER LOADING

Winter Projection, Non-Point Benthic Load Input and TMDL Calculations:																
Modeled stream or water body: BAYOU TERREBONNE (SUBSEGMENT 120301)																
Values to be used in the projection models.																
Reach Number and Description	Back-ground Benthic Load	Back-ground percentage reduction	Back-ground Benthic Load adjusted for % reduction	Proj. Model Avg. Reach Width	Proj. Temp.	Percentage Reduction of man-made sources	Man-Made Calibration Benthic Load adjusted for % reduction (Reduced CBL)	Total Calibration Benthic Load (TCBL) adjusted for % reduction (Reduced TCBL)	Reduced TCBL adjusted for MOS	Non-Point UCBOD	Non-Point UNBOD	SOD @ 20 C	Non-Point UCBOD1 INPUTS	Non-Point UCBOD2 INPUTS	Total Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS
	gm O ₂ / [(m ³)(day)]	%	gm O ₂ / [(m ³)(day)]	Meters (deg Celcius)		%	gm O ₂ / [(m ²)(day)]	gm O ₂ / [(m ³)(day)]	gm O ₂ / [(m ³)(day)]	gm O ₂ / [(m ³)(day)]	gm O ₂ / [(m ³)(day)]	(kg/day)	(kg/day)	(kg/day)	(kg/day)	
	F1	F2	F = F1 x (1-F2)	G	H	I	J, (note 2)	K = F + J	L, (note 3)	M = (L)(A / D)	N = (L)(B / D)	O = (L)(C / D)	P1 = (M)(G)(E)(A1/A3)	P2 = (M)(G)(E)(A2/A3)	P3 = (E)(G)(M)	Q3 = (E)(G)(N)
Bayou Terrebonne (Headwaters to Weir #3)																
UPPER BAYOU TERREBONNE REACH 1: BT01 & BT02	0.00	0%	0.00	16.46	20.83	80.0%	0.70	0.70	0.78	0.105	0.009	0.67	4.11	1.78	5.89	0.49
UPPER BAYOU TERREBONNE REACH 2: BT02 & BT03	0.00	0%	0.00	17.68	20.83	80.0%	0.73	0.73	0.81	0.160	0.028	0.62	9.11	2.89	12.00	2.07
UPPER BAYOU TERREBONNE REACH 3: BT03 TO GLASS SHOP WEIR	0.00	0%	0.00	17.68	20.83	80.0%	0.62	0.62	0.69	0.136	0.000	0.56	4.89	0.78	5.67	0.00
UPPER BAYOU TERREBONNE REACH 4: GLASS SHOP WEIR TO COTEAU WEIR	0.00	0%	0.00	16.46	20.83	80.0%	0.65	0.65	0.73	0.364	0.051	0.31	12.00	3.78	15.78	2.22
UPPER BAYOU TERREBONNE REACH 5: COTEAU WEIR TO SONIC WEIR (WEIR #3)	0.00	0%	0.00	17.68	20.83	80.0%	0.75	0.75	0.83	0.171	0.008	0.66	5.33	2.18	7.51	0.33
Bayou Terrebonne (Weir #3 to ICWW)																
LOWER BAYOU TERREBONNE REACH 1: WEIR #3 TO BAYOU CANE	0.00	0%	0.00	14.32	20.83	65.0%	1.26	1.26	1.40	0.453	0.168	0.78	0.78	0.58	1.36	0.51
LOWER BAYOU TERREBONNE REACH 2: BAYOU CANE TO BT08	0.00	0%	0.00	14.32	20.83	65.0%	1.17	1.17	1.30	0.295	0.224	0.78	0.19	0.78	0.97	0.74
LOWER BAYOU TERREBONNE REACH 3: BT08 TO BT09	0.00	0%	0.00	14.32	20.83	65.0%	1.78	1.78	1.98	1.080	0.047	0.86	9.72	4.67	14.39	0.62
LOWER BAYOU TERREBONNE REACH 4: BT09 TO BT 10	0.00	0%	0.00	14.63	20.83	65.0%	1.15	1.15	1.28	0.294	0.134	0.86	6.61	1.94	8.56	3.89
LOWER BAYOU TERREBONNE REACH 5: BT10 TO BT11	0.00	0%	0.00	18.90	20.83	65.0%	1.74	1.74	1.93	1.445	0.171	0.31	38.89	7.00	45.89	5.44
LOWER BAYOU TERREBONNE REACH 6: BT11 TO BT12	0.00	0%	0.00	22.86	20.83	65.0%	2.00	2.00	2.22	1.551	0.632	0.04	33.83	6.22	40.06	16.33
LOWER BAYOU TERREBONNE REACH 7: BT12 TO ICWW	0.00	0%	0.00	22.86	20.83	65.0%	1.25	1.25	1.39	1.343	0.045	0.00	23.33	0.00	23.33	0.78
Sub-Total								13.81					148.81	32.59	181.40	33.42
			Notes:	Note 1, Data was calculated in and brought from the Calibration worksheet dataset. Note 2, $J = [(1 - I) \times (D - F1)]$ Note 3, $L = [K - F] / (1 - MOS) + F$ Note 4, $R = E \times G \times O \times 1.065^{(H-20)}$ Note 5, $X = U \times 1.065^{(H-20)}$ Note 6, $AE = E \times G \times AB \times 1.065^{(H-20)}$												
			EXPLICIT MARGIN OF SAFETY:	UPPER BAYOU TERREBONNE MARGIN OF SA 10% LOWER BAYOU TERREBONNE MARGIN OF SA 10%												
				Note: Margin of Safety applies only to Man-Made loads, not Background loads.												

Winter TMDL Calculations for Point Source loads:

BAYOU TERREBONNE (SUBSEGMENT 120301)

Input data into the shaded cells.

Point Source Loading Calculations

$$(1) - \text{Load(kg/day)} = 86.4 \times \text{Ultimate Conc (mg/l)} \times \text{Modeled Flow(cms)}$$

(2) - $\text{[ICBOD conc.} = \text{CBODS(mg/l)} \times 2.3]$ and $\text{[INBOD conc.} = \text{NH}_3\text{N(mg/l)} \times 4.3]$

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

Winter TMDL calculations and Projection model calculations for Headwater / Tributary loads:																						
BAYOU TERREBONNE (SUBSEGMENT 120301)										Shaded cells are input values for calculations. Values to be used in the projection models.												
Headwater / Tributary Load Determinations																						
Headwater / Tributary Description and Reach #	Seasonal Critical flow (cms)	UCBOD1 (mg/l)	UCBOD2 (mg/l)	Total UCBOD (mg/l)	Organic-N (mg/l)	Ammonia-N (mg/l)	Total UNBOD (mg/l)	UCBOD1 (kg/day)	UCBOD2 (kg/day)	UCBOD (kg/day)	UNBOD (kg/day)	Background UCBOD1 conc. (mg/l)	Background UCBOD2 conc. (mg/l)	Background UNBOD conc. (mg/l)	Background % Reduction	Percent reduction of Man-Made loads	Projection UCBOD1 input conc. (mg/l)	Projection UCBOD2 input conc. (mg/l)	Projection UNBOD input conc. (mg/l)			
	A	B1	B2	B3	C1	C2	C3	D1=(86.4)(A)(B1)	D2=(86.4)(A)(B2)	D3 = (86.4)(A)(B3)	E3 = (86.4)(A)(C3)	F1	F2	F3	G3	H	K	N1/(A)(86.4)]	N2/(A)(86.4)]	N3/(A)(86.4)]	(O3)/(A)(86.4)]	
Bayou Terrebonne (Headwaters to Weir #3)																						
UPPER BAYOU TERREBONNE HEADWATER AT BT01	0.028310	12.13	12.40	24.53				5.15	29.67	30.33	60.00	12.60					0%	80%	2.70	2.76	5.45	1.14
Bayou Terrebonne (Weir #3 to ICWW)																						
LOWER BAYOU TERREBONNE HEADWATER ABOVE WEIR #3	0.105380	4.62	4.07	8.69				2.08	42.06	37.06	79.12	18.94					0%	65%	1.80	1.58	3.38	0.81
SUB-TOTAL TMDL LOADING																						
EXPLICIT MARGINS:																						
UPPER BAYOU TERREBONNE MARGIN OF SAFETY (MOS) (%) =								10%														
LOWER BAYOU TERREBONNE MARGIN OF SAFETY (MOS) (%) =								10%														
Note: Margin of Safety applies only to Man-Made loads, not Background loads.																						

Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

Reach Description and #		Calibration Load determinations:																		Projection Model Input determinations:											
		Projection Flow (cms)	Cal. UCBOD1 conc. (mg/l)	Cal. UCBOD2 conc. (mg/l)	Cal. Total UCBOD conc. (mg/l)	Unadjusted UCBOD1 (kg/day)	Unadjusted UCBOD2 (kg/day)	Unadjusted Total UCBOD (kg/day)	Cal. Total UNBOD conc. (mg/l)	Unadjusted Total UNBOD conc. (mg/l)	Background Conc. UCBOD1 (mg/l)	Background Conc. UCBOD2 (mg/l)	Background Conc. Total UCBOD (mg/l)	Background % Reduction	Background Load UCBOD1 (kg/day)	Background Load UCBOD2 (kg/day)	Background Load Total UNBOD (kg/day)	Projection UCBOD1 conc. (mg/l)	Projection UCBOD2 conc. (mg/l)	Projection Total UCBOD conc. (mg/l)	Projection UNBOD conc. (mg/l)	Proj. Total UCBOD MOS load (kg/day)	Proj. Total UNBOD MOS load (kg/day)	Sub-total MOS load (kg/day)	Sub-total LA load (kg/day)						
		A	B1	B2	B3 = B1 + B2	C1 = (86.4)(A)(B1)	C2 = (86.4)(A)(B2)	C3 = C1 + C2	D3	E3	F1	F2	F3 = F1 + F2	G3	H, Note 1	I1 = (1 - H)(86.4)(A)(F1)	I2 = (1 - H)(86.4)(A)(F2)	I3 = (1 - H)(86.4)(A)(F3)	N1 / (86.4)(A)	N2 / (86.4)(A)	N3 / (86.4)(A)	O1 / (86.4)(A)	P1 = N1 - L1	P2 = N2 - L2	P3 = N3 - L3	Q3 = O3 - M3	P1+P2+Q3	L1+L2+M3			
Bayou Terrebonne (Headwaters to Weir #3)																															
UPPER BAYOU TERREBONNE REACH 1: BT01 & BT02		0.0190	4.10	4.47	8.57	6.72	7.32	14.04	2.68	4.39	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.91	0.99	1.90	0.60	0	0	0	0	0	4			
UPPER BAYOU TERREBONNE REACH 2: BT02 & BT03		0.0236	3.60	4.78	8.38	7.35	9.76	17.12	3.04	6.21	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.80	1.06	1.86	0.68	0.16	0.22	0	0	1	5			
UPPER BAYOU TERREBONNE REACH 3: BT03 TO GLASS SHOP WEIR		0.0131	3.52	3.89	7.41	3.98	4.40	8.39	1.27	1.44	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.78	0.86	1.65	0.28	0.09	0.10	0	0	0	2			
UPPER BAYOU TERREBONNE REACH 4: GLASS SHOP WEIR TO COTEAU WEIR		0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0				
UPPER BAYOU TERREBONNE REACH 5: COTEAU WEIR TO SONIC WEIR (WEIR #3)		0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0				
Bayou Terrebonne (Weir #3 to ICWW)																															
LOWER BAYOU TERREBONNE REACH 1: WEIR #3 TO BAYOU CANE		0.0093	4.62	4.07	8.69	3.70	3.26	6.95	2.08	1.66	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	1.80	1.58	3.38	0.81	0.14	0.13	0	0	0	3			
LOWER BAYOU TERREBONNE REACH 2: BAYOU CANE TO BT08		0.0102	3.81	4.42	8.23	3.34	3.88	7.22	1.83	1.60	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	1.48	1.72	3.20	0.71	0.13	0.15	0	0	0	3			
LOWER BAYOU TERREBONNE REACH 3: BT08 TO BT09		0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0				
LOWER BAYOU TERREBONNE REACH 4: BT09 TO BT10		0.0234	3.73	4.20	7.93	10.76	12.12	22.88	2.66	7.67	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	1.45	1.63	3.08	1.03	0.42	0.47	1	0	1	11			
LOWER BAYOU TERREBONNE REACH 5: BT10 TO BT11		0.2200	3.63	4.07	7.70	69.00	77.36	146.36	2.54	48.28	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	1.41	1.58	2.99	0.99	2.68	3.01	6	2	8	68			
LOWER BAYOU TERREBONNE REACH 6: BT11 TO BT12		0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0					
LOWER BAYOU TERREBONNE REACH 7: BT12 TO ICWW		0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0					
Sub-Total benthic loading																			0.00	0.00	0.00	0.00						8.01	2.57	10.58	95.24
Note 1: The percentage reduction values are taken from the "Non-Point Benthic Load Input and TMDL Calculations" worksheet.																															
EXPLICIT MARGINS:																															
UPPER BAYOU TERREBONNE MARGIN OF SAFETY (MOS, %) = [MOG + MOU] = 10%																															
LOWER BAYOU TERREBONNE MARGIN OF SAFETY (MOS, %) = [MOG + MOU] = 10%																															
Note: Margin of Safety applies only to Man-Made loads, not Background loads.																															

APPENDIX G3 – CRITICAL TEMPERATURE AND DO ANALYSIS RESULTS

Critical Temperature and DO Determinations:

SITE NUMBER: 110

SITE DESCRIPTION: Bayou Terrebonne at Houma, Louisiana

	<i>Summer Season</i>	<i>Winter Season</i>
90th Percentile Temperature (°C):	30.31	20.83
90 % DO Sat (mg/L):	6.77	8.05
Months:	May To Oct	Nov To Apr
Date	Water Temp. (°C)	DO (mg/L)
11/16/2004	18.60	6.50
10/12/2004	23.60	2.40
8/24/2004	30.70	4.50
7/27/2004	28.50	2.40
6/29/2004	26.30	3.20
6/2/2004	28.12	3.88
5/10/2004	25.70	4.10
4/19/2004	20.60	7.70
3/9/2004	20.10	2.10
2/3/2004	12.10	9.50
1/6/2004	15.80	2.70
11/29/2000	14.41	7.51
10/25/2000	23.48	4.80
9/27/2000	25.24	4.50
8/30/2000	30.22	5.71
8/2/2000	28.76	6.34
6/28/2000	30.33	5.81
5/31/2000	29.62	6.71
5/3/2000	25.17	4.26
4/4/2000	20.79	7.20
3/1/2000	21.21	5.77
2/2/2000	10.20	8.33
1/5/2000	15.13	6.81

APPENDIX H – SURVEY DATA MEASUREMENTS AND ANALYSIS

APPENDIX H1 –WATER QUALITY DATA

APPENDIX H2 – CROSS SECTIONS AND DISCHARGE MEASUREMENTS

APPENDIX H3 – FIELD NOTES

APPENDIX H4 - CONTINUOUS MONITOR DATA

APPENDIX H5 – BOD CALCULATIONS

APPENDIX H6 – DYE STUDY CALCULATIONS

APPENDIX H7 – WEATHER DATA

APPENDIX H8 – RECONNAISSANCE SURVEY AND TMDL SURVEY

PICTURES

APPENDIX H9 – DAM / WEIR DATA

APPENDIX H1 –WATER QUALITY DATA

Bayou Terrebonne Water Quality Data																	
Subsegmment 120301																	
Survey Date 8/6/03																	
Site	Alkalinity (ppm)	Ammonia Nitrogen (ppm)	Chloride Ion (ppm)	Chlorophyll a Calculated (ug/L)	Hardness (ppm)	NO2-NO3 (ppm)	pH	Sodium (ppm)	Specific Conductance (umhos/cm)	Sulfate (ppm)	TDS (ppm)	TKN (ppm)	TOC (ppm)	TP (ppm)	True Color (PCU)	TSS (ppm)	Turbidity (NTU)
BC-01	119	0.12	10.5	5.2	128	0.39	8.02	9.1	272	9.7	179	1	13.6	0.37	55	8	6
BT-01	209	ND	16.2	62.9	201	1.17	8.27	14.6	422	4	280	1.97	18.8	0.33	40	19	11
BT-02	196	0.32	17.1	9.7	190	0.61	8.29	16.7	402	4.5	242	1.25	13.5	0.43	30	4	4.5
BT-03	204	0.35	16.4	8.3	199	0.69	8.26	15.7	410	3.7	260	1.21	8.6	0.45	30	5.3	4
BT-04	184	ND	12.8	5.6	176	0.26	8.28	14	367	4.1	233	0.75	14.3	0.45	30	ND	2.3
BT-05	184	0.13	12.1	5.8	178	0.31	8.26	14	380	3.8	231	0.86	13	0.42	30	9.5	2.4
BT-05a	185	0.14	13.2	10.9	183	0.5	8.15	13.8	394	4.6	243	1.16	14.1	0.63	30	10	5.9
BT-06	173	0.16	11.7	11.7	168	0.37	8.15	11.6	360	4.7	221	0.9	11.4	0.35	20	4.7	3.4
BT-07	173	ND	11.6	10.1	168	0.44	8.23	12.1	357	4.9	229	1.2	11.2	0.46	25	8	4.7
BT-08	156	0.27	11.8	15.5	155	0.56	8.04	11.6	333	6.9	193	1.35	12.2	0.34	30	14.7	7.3
BT-09	124	0.15	13.4	26.9	131	0.49	7.94	11.3	292	9.4	198	1.3	14.3	0.38	50	10	5.3
BT-10	137	0.17	50.8	10.7	189	1.2	8	19.1	457	12.8	304	4.9	14.6	0.31	30	6	4.4
BT-11	147	0.24	12.8	9.8	149	0.67	7.97	11.2	322	8.3	201	1.14	11.5	0.33	40	4	2.5
BT-12	135	0.37	11.1	12	138	0.77	8.11	10.5	300	9	189	1.24	10.4	0.31	40	12.7	10
ICWW	86.2	0.14	18.5	22.1	107	1.17	7.73	15.1	269	23	167	1.19	8.7	0.18	25	40	22

PROJECT NUMBER	SITE NUMBER	SITE DESCRIPTION	SITE LOCATION	LAB ID	LAB SAMPLE TYPE	ANALYSIS NAME	RESULT	UNITS	REFERENCE METHOD	ANALYSIS SET UP	ANALYSIS READ	DATE NITRATES SAMPLED	COMMENTS
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16505	TRG	TSS	19.0	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16505	TRG	TDS	280	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16505	TRG	Alkalinity	209	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16505	TRG	Turbidity	11	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16505	TRG	Specific Conductance	422	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16505	TRG	True Color	40	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16505	TRG	Chloride, Ion Chromatograph	16.2	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16505	TRG	Sulfate	4.0	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16506	TRG	Sodium	14.6	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16507	TRG	Hardness	201	ppm	130.2	8/11/2003	8/11/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16507	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16507	TRG	TP	0.33	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16507	TRG	TKN	1.97	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16507	TRG	Ammonia-Nitrogen	ND	ppm	350.3	8/11/2003	8/11/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16508	TRG	TOC	18.8	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	pH, Ultimate BOD survey	8.27	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	TOC (60 Day BOD)	9.9	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	TKN (60 Day BOD)	0.79	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	NO ₂ NO ₃ - Initial Reading	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	NO ₂ NO ₃ - Reading 1	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	NO ₂ NO ₃ - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	NO ₂ NO ₃ - Reading 3	ND	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	NO ₂ NO ₃ - Reading 4	ND	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	NO2NO3 - Reading 5	0.26	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	NO2NO3 - Reading 6	0.57	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	NO2NO3 - Reading 7	0.88	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	NO2NO3 - Reading 8	0.97	ppm	353.2	9/17/2003	9/17/2003	9/5/2003	
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	NO2NO3 - Reading 9	1.07	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	NO2NO3 - Reading 10	1.17	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	NO2NO3 - Final	1.17	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	Non-Filtered BOD 60 - Reading 1	2.5	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	Non-Filtered BOD 60 - Reading 2	8.4	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	Non-Filtered BOD 60 - Reading 3	10.5	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	Non-Filtered BOD 60 - Reading 4	12.4	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	Non-Filtered BOD 60 - Reading 5	14.7	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	Non-Filtered BOD 60 - Reading 6	17.9	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	Non-Filtered BOD 60 - Reading 7	20.9	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	Non-Filtered BOD 60 - Reading 8	23.5	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	Non-Filtered BOD 60 - Reading 9	25.6	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	Non-Filtered BOD 60 - Reading 10	26.8	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16509	TRG	Non-Filtered BOD 60 - Final	27.6	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16510	TRG	Chlorophyll A (calculated)	62.9	ug/L	445 (modifie	8/14/2003	8/18/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16510	TRG	Chlorophyll A (raw)	1888	ug/L	445 (modifie	8/14/2003	8/14/2003		
ES2003003	BT-1	Bayou Terrebonne	at Ducros Road/Devil's Swamp Road Brige	AF16510	TRG	Volume of sample, Chlorophyll A (raw)	300	ml	445 (modifie	8/14/2003	8/14/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16511	TRG	TSS	4.0	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16511	TRG	TDS	242	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16511	TRG	Alkalinity	196	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16511	TRG	Turbidity	4.5	NTU	SM 2130B	8/7/2003	8/7/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16511	TRG	Specific Conductance	402	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16511	TRG	True Color	30	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16511	TRG	Chloride, Ion Chromatograph	17.1	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16511	TRG	Sulfate	4.5	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16512	TRG	Sodium	16.7	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16513	TRG	Hardness	190	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16513	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16513	TRG	TP	0.43	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16513	TRG	TKN	1.25	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16513	TRG	Ammonia-Nitrogen	0.32	ppm	350.3	8/11/2003	8/11/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16514	TRG	TOC	13.5	ppm	415.1	8/14/2003	8/15/2003		
								pH					
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	pH, Ultimate BOD survey	8.29	units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	TOC (60 Day BOD)	7.4	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	TKN (60 Day BOD)	0.61	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	NO ₂ NO ₃ - Initial Reading	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	NO ₂ NO ₃ - Reading 1	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	NO ₂ NO ₃ - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	NO ₂ NO ₃ - Reading 3	ND	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	NO ₂ NO ₃ - Reading 4	0.06	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	NO ₂ NO ₃ - Reading 5	0.23	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	NO ₂ NO ₃ - Reading 6	0.34	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	NO ₂ NO ₃ - Reading 7	0.47	ppm	353.2	9/5/2003	9/5/2003	8/27/2003	
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	NO ₂ NO ₃ - Reading 8	0.51	ppm	353.2	9/17/2003	9/17/2003	9/5/2003	
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	NO ₂ NO ₃ - Reading 9	0.53	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	NO ₂ NO ₃ - Reading 10	0.61	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	NO ₂ NO ₃ - Final	0.61	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	Non-Filtered BOD 60 - Reading 1	0.7	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	Non-Filtered BOD 60 - Reading 2	2.1	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	Non-Filtered BOD 60 - Reading 3	2.7	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	Non-Filtered BOD 60 - Reading 4	3.5	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	Non-Filtered BOD 60 - Reading 5	4.7	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	Non-Filtered BOD 60 - Reading 6	5.8	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	Non-Filtered BOD 60 - Reading 7	7	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	Non-Filtered BOD 60 - Reading 8	8	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	Non-Filtered BOD 60 - Reading 9	9.2	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	Non-Filtered BOD 60 - Reading 10	9.8	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16515	TRG	Non-Filtered BOD 60 - Final	10.2	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16516	TRG	Volume of sample, Chlorophyll A (raw)	300	ml	445 (modified)	8/14/2003	8/15/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16516	TRG	Chlorophyll A (calculated)	9.7	ug/L	445 (modifie	8/14/2003	8/19/2003		
ES2003003	BT-2	Bayou Terrebonne	at Price School Road Bridge	AF16516	TRG	Chlorophyll A (raw)	290	ug/L	445 (modifie	8/14/2003	8/15/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16517	TRG	TSS	5.3	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16517	TRG	TDS	260	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16517	TRG	Alkalinity	204	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16517	TRG	Turbidity	4.0	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16517	TRG	Specific Conductance	410	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16517	TRG	True Color	30	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16517	TRG	Chloride, Ion Chromatograph	16.4	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16517	TRG	Sulfate	3.7	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16518	TRG	Sodium	15.7	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16519	TRG	Hardness	199	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16519	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16519	TRG	TP	0.45	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16519	TRG	TKN	1.21	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16519	TRG	Ammonia-Nitrogen	0.35	ppm	350.3	8/11/2003	8/11/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16520	TRG	TOC	8.6	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	pH, Ultimate BOD survey	8.26	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	TOC (60 Day BOD)	7.7	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	TKN (60 Day BOD)	0.68	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	NO2NO3 - Initial Reading	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	NO2NO3 - Reading 1	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	NO2NO3 - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	NO2NO3 - Reading 3	0.05	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	NO2NO3 - Reading 4	0.19	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	NO2NO3 - Reading 5	0.38	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	NO2NO3 - Reading 6	0.53	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	NO2NO3 - Reading 7	0.57	ppm	353.2	9/5/2003	9/5/2003	8/27/2003	
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	NO2NO3 - Reading 8	0.63	ppm	353.2	9/17/2003	9/17/2003	9/5/2003	
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	NO2NO3 - Reading 9	0.66	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	NO2NO3 - Reading 10	71	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	NO2NO3 - Final	0.69	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	Non-Filtered BOD 60 - Reading 1	0.7	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	Non-Filtered BOD 60 - Reading 2	2.3	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	Non-Filtered BOD 60 - Reading 3	2.9	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	Non-Filtered BOD 60 - Reading 4	4.1	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	Non-Filtered BOD 60 - Reading 5	5.2	ppm	5210B	8/7/2003	8/18/2003		

PROJECT NUMBER	Site Number	Site Description	Site Location	Lab ID	Lab Sample Type	Analysis Name	Result	Units	Reference Method	Analysis Set Up	Analysis Read	Date Nitrates Sampled	Comments
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	Non-Filtered BOD 60 - Reading 6	6.5	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	Non-Filtered BOD 60 - Reading 7	7.3	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	Non-Filtered BOD 60 - Reading 8	8.3	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	Non-Filtered BOD 60 - Reading 9	9.4	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	Non-Filtered BOD 60 - Reading 10	10	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16521	TRG	Non-Filtered BOD 60 - Final	10.3	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16522	TRG	Chlorophyll A (raw)	250	ug/L	445 (modifie	8/14/2003	8/15/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16522	TRG	Volume of sample, Chlorophyll A (raw)	300	ml	445 (modifie	8/14/2003	8/15/2003		
ES2003003	BT-3	Bayou Terrebonne	at Recreation Road Bridge	AF16522	TRG	Chlorophyll A (calculated)	8.3	ug/L	445 (modifie	8/14/2003	8/19/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16523	TRG	TSS	ND	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16523	TRG	TDS	233	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16523	TRG	Alkalinity	184	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16523	TRG	Turbidity	2.3	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16523	TRG	Specific Conductance	367	umho/s/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16523	TRG	True Color	30	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16523	TRG	Chloride, Ion Chromatograph	12.8	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16523	TRG	Sulfate	4.1	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16524	TRG	Sodium	14.0	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16525	TRG	Hardness	176	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16525	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16525	TRG	TP	0.45	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16525	TRG	TKN	0.75	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16525	TRG	Ammonia-Nitrogen	ND	ppm	350.3	8/11/2003	8/11/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16526	TRG	TOC	14.3	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	pH, Ultimate BOD survey	8.28	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	TOC (60 Day BOD)	8.8	ppm	415.1	10/14/2003	10/14/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	TKN (60 Day BOD)	0.55	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	NO2NO3 - Initial Reading	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	NO2NO3 - Reading 1	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	NO2NO3 - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	NO2NO3 - Reading 3	ND	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	NO2NO3 - Reading 4	ND	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	NO2NO3 - Reading 5	0.06	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	NO2NO3 - Reading 6	0.10	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	NO2NO3 - Reading 7	0.15	ppm	353.2	9/5/2003	9/5/2003	8/27/2003	
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	NO2NO3 - Reading 8	0.20	ppm	353.2	9/17/2003	9/17/2003	9/5/2003	
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	NO2NO3 - Reading 9	0.24	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	NO2NO3 - Reading 10	0.27	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	NO2NO3 - Final	0.26	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	Non-Filtered BOD 60 - Reading 1	0.5	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	Non-Filtered BOD 60 - Reading 2	2.0	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	Non-Filtered BOD 60 - Reading 3	2.5	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	Non-Filtered BOD 60 - Reading 4	3.1	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	Non-Filtered BOD 60 - Reading 5	3.5	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	Non-Filtered BOD 60 - Reading 6	4.2	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	Non-Filtered BOD 60 - Reading 7	4.9	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	Non-Filtered BOD 60 - Reading 8	5.9	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	Non-Filtered BOD 60 - Reading 9	7	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	Non-Filtered BOD 60 - Reading 10	7.5	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16527	TRG	Non-Filtered BOD 60 - Final	7.7	ppm	5210B	8/7/2003	10/6/2003		

PROJECT NUMBER	Site Number	Site Description	Site Location	Lab ID	Lab Sample Type	Analysis Name	Result	Units	Reference Method	Analysis Set Up	Analysis Read	Date Nitrates Sampled	Comments
		Road Bridge											
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16528	TRG	Chlorophyll A (calculated)	5.6	ug/L	445 (modifie	8/14/2003	8/19/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16528	TRG	Chlorophyll A (raw)	168	ug/L	445 (modifie	8/14/2003	8/15/2003		
ES2003003	BT-4	Bayou Terrebonne	upstream of weir at North Terrebonne Road Bridge	AF16528	TRG	Volume of sample, Chlorophyll A (raw)	300	ml	445 (modifie	8/14/2003	8/15/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16529	TRG	TSS	9.5	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16529	TRG	TDS	231	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16529	TRG	Alkalinity	184	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16529	TRG	Turbidity	2.4	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16529	TRG	Specific Conductance	380	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16529	TRG	True Color	30	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16529	TRG	Chloride, Ion Chromatograph	12.1	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16529	TRG	Sulfate	3.8	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16530	TRG	Sodium	14.0	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16531	TRG	Hardness	178	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16531	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16531	TRG	TP	0.42	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16531	TRG	TKN	0.86	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16531	TRG	Ammonia-Nitrogen	0.13	ppm	350.3	8/12/2003	8/12/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16532	TRG	TOC	13.0	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	pH, Ultimate BOD survey	8.26	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	TOC (60 Day BOD)	8.5	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	TKN (60 Day BOD)	0.44	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	NO2NO3 - Initial Reading	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	NO2NO3 - Reading 1	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	NO2NO3 - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	NO2NO3 - Reading 3	ND	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	NO2NO3 - Reading 4	0.05	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	NO2NO3 - Reading 5	0.10	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	NO2NO3 - Reading 6	0.17	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	NO2NO3 - Reading 7	0.20	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	NO2NO3 - Reading 8	0.26	ppm	353.2	9/17/2003	9/17/2003	9/5/2003	
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	NO2NO3 - Reading 9	0.29	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	NO2NO3 - Reading 10	0.32	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	NO2NO3 - Final	0.31	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	Non-Filtered BOD 60 - Reading 1	0.6	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	Non-Filtered BOD 60 - Reading 2	2.1	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	Non-Filtered BOD 60 - Reading 3	2.5	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	Non-Filtered BOD 60 - Reading 4	3.2	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	Non-Filtered BOD 60 - Reading 5	3.6	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	Non-Filtered BOD 60 - Reading 6	4.3	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	Non-Filtered BOD 60 - Reading 7	5.0	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	Non-Filtered BOD 60 - Reading 8	6	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	Non-Filtered BOD 60 - Reading 9	7	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	Non-Filtered BOD 60 - Reading 10	7.6	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16533	TRG	Non-Filtered BOD 60 - Final	7.9	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16534	TRG	Chlorophyll A (calculated)	5.8	ug/L	445 (modifie	8/14/2003	8/19/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North Terrebonne Road Bridge	AF16534	TRG	Chlorophyll A (raw)	173	ug/L	445 (modifie	8/14/2003	8/15/2003		
ES2003003	BT-5	Bayou Terrebonne	downstream of weir at North	AF16534	TRG	Volume of sample, Chlorophyll A	300	ml	445	8/14/2003	8/15/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
			Terrebonne Road Bridge			(raw)			(modified)				
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16535	TRG	TSS	10.0	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16535	TRG	TDS	243	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16535	TRG	Alkalinity	185	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16535	TRG	Turbidity	5.9	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16535	TRG	Specific Conductance	394	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16535	TRG	True Color	30	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16535	TRG	Chloride, Ion Chromatograph	13.2	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16535	TRG	Sulfate	4.6	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16536	TRG	Sodium	13.8	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16537	TRG	Hardness	183	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16537	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16537	TRG	TP	0.63	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16537	TRG	TKN	1.16	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16537	TRG	Ammonia-Nitrogen	0.14	ppm	350.3	8/12/2003	8/12/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16538	TRG	TOC	14.1	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	pH, Ultimate BOD survey	8.15	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	TOC (60 Day BOD)	9.5	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	TKN (60 Day BOD)	0.61	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	NO ₂ NO ₃ - Initial Reading	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	NO ₂ NO ₃ - Reading 1	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	NO ₂ NO ₃ - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	NO ₂ NO ₃ - Reading 3	0.07	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	NO ₂ NO ₃ - Reading 4	0.17	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	NO2NO3 - Reading 5	0.24	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	NO2NO3 - Reading 6	0.34	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	NO2NO3 - Reading 7	0.41	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	NO2NO3 - Reading 8	0.47	ppm	353.2	9/17/2003	9/17/2003	9/5/2003	
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	NO2NO3 - Reading 9	0.50	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	NO2NO3 - Reading 10	0.52	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	NO2NO3 - Final	0.50	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	Non-Filtered BOD 60 - Reading 1	1.2	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	Non-Filtered BOD 60 - Reading 2	3.0	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	Non-Filtered BOD 60 - Reading 3	3.8	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	Non-Filtered BOD 60 - Reading 4	5.0	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	Non-Filtered BOD 60 - Reading 5	5.7	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	Non-Filtered BOD 60 - Reading 6	6.6	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	Non-Filtered BOD 60 - Reading 7	7.7	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	Non-Filtered BOD 60 - Reading 8	9	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	Non-Filtered BOD 60 - Reading 9	10.3	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	Non-Filtered BOD 60 - Reading 10	10.9	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16539	TRG	Non-Filtered BOD 60 - Final	11.2	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16540	TRG	Chlorophyll A (raw)	328	ug/L	445 (modifie)	8/14/2003	8/15/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16540	TRG	Volume of sample, Chlorophyll A (raw)	300	ml	445 (modifie)	8/14/2003	8/15/2003		
ES2003003	BT-5A	Bayou Terrebonne	80 yards downstream Coteau Road Bridge	AF16540	TRG	Chlorophyll A (calculated)	10.9	ug/L	445 (modifie)	8/14/2003	8/19/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16541	FB	TSS	ND	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16541	FB	TDS	ND	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16541	FB	Alkalinity	ND	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16541	FB	Turbidity	ND	NTU	SM 2130B	8/7/2003	8/7/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16541	FB	Specific Conductance	ND	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16541	FB	True Color	ND	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16541	FB	Chloride, Ion Chromatograph	ND	ppm	300.0	8/28/2003	8/28/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16541	FB	Sulfate	ND	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16542	FB	Sodium	ND	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16543	FB	Hardness	ND	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16543	FB	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16543	FB	TP	ND	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16543	FB	TKN	0.17	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16543	FB	Ammonia-Nitrogen	ND	ppm	350.3	8/12/2003	8/12/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16544	FB	TOC	ND	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	pH, Ultimate BOD survey	8.45	pH units	150.1	10/6/2003	10/6/2003		U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	TOC (60 Day BOD)	ND	ppm	415.1	10/14/2003	10/14/2003		U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	TKN (60 Day BOD)	0.14	ppm	351.2	11/3/2003	11/4/2003		U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	NO2NO3 - Initial Reading	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	NO2NO3 - Reading 1	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	NO2NO3 - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	NO2NO3 - Reading 3	ND	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	NO2NO3 - Reading 4	ND	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	NO2NO3 - Reading 5	ND	ppm	353.2	9/24/2003	9/24/2003	8/18/2003	U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	NO2NO3 - Reading 6	ND	ppm	353.2	9/24/2003	9/24/2003	8/22/2003	U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	NO2NO3 - Reading 7	ND	ppm	353.2	9/24/2003	9/24/2003	8/27/2003	U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	NO2NO3 - Reading 8	ND	ppm	353.2	9/24/2003	9/24/2003	9/5/2003	U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	NO2NO3 - Reading 9	ND	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	NO2NO3 - Reading 10	ND	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	NO2NO3 - Final	ND	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	Non-Filtered BOD 60 - Reading 1	0.1	ppm	5210B	8/8/2003	8/8/2003		U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	Non-Filtered BOD 60 - Reading 2	0.2	ppm	5210B	8/11/2003	8/11/2003		U5NN & U6NN reanalyzed after holding time expired.

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	Non-Filtered BOD 60 - Reading 3	0.3	ppm	5210B	8/7/2003	8/13/2003		U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	Non-Filtered BOD 60 - Reading 4	0.6	ppm	5210B	8/7/2003	8/15/2003		U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	Non-Filtered BOD 60 - Reading 5	0.4	ppm	5210B	8/7/2003	8/18/2003		U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	Non-Filtered BOD 60 - Reading 6	0.3	ppm	5210B	8/7/2003	8/22/2003		U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	Non-Filtered BOD 60 - Reading 7	0.5	ppm	5210B	8/7/2003	8/27/2003		U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	Non-Filtered BOD 60 - Reading 8	0.4	ppm	5210B	8/7/2003	9/5/2003		U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	Non-Filtered BOD 60 - Reading 9	0.6	ppm	5210B	8/7/2003	9/16/2003		U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	Non-Filtered BOD 60 - Reading 10	0.7	ppm	5210B	8/7/2003	9/26/2003		U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16545	FB	Non-Filtered BOD 60 - Final	0.5	ppm	5210B	8/7/2003	10/6/2003		U5NN & U6NN reanalyzed after holding time expired.
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16547	TRG	TSS	4.7	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16547	TRG	TDS	219	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16547	TRG	Alkalinity	173	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16547	TRG	Turbidity	3.4	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16547	TRG	Specific Conductance	357	umho/s/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16547	TRG	True Color	20	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16547	TRG	Chloride, Ion Chromatograph	11.7	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16547	TRG	Sulfate	4.8	ppm	300.0	8/15/2003	8/15/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16548	TRG	Sodium	11.6	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16549	TRG	Hardness	168	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16549	TRG	Nitrate+Nitrite Nitrogen	0.05	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16549	TRG	TP	0.35	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16549	TRG	TKN	0.85	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16549	TRG	Ammonia-Nitrogen	0.14	ppm	350.3	8/12/2003	8/12/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16550	TRG	TOC	12.1	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	pH, Ultimate BOD survey	8.15	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	TOC (60 Day BOD)	6.5	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	TKN (60 Day BOD)	0.43	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	NO2NO3 - Initial Reading	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	NO2NO3 - Reading 1	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	NO2NO3 - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	NO2NO3 - Reading 3	ND	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	NO2NO3 - Reading 4	0.09	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	NO2NO3 - Reading 5	0.17	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	NO2NO3 - Reading 6	0.23	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	NO2NO3 - Reading 7	0.28	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	NO2NO3 - Reading 8	0.33	ppm	353.2	9/17/2003	9/17/2003	9/5/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	NO2NO3 - Reading 9	0.36	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	NO2NO3 - Reading 10	0.38	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	NO2NO3 - Final	0.38	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	Non-Filtered BOD 60 - Reading 1	0.5	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	Non-Filtered BOD 60 - Reading 2	1.6	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	Non-Filtered BOD 60 - Reading 3	1.9	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	Non-Filtered BOD 60 - Reading 4	2.8	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	Non-Filtered BOD 60 - Reading 5	3.2	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	Non-Filtered BOD 60 - Reading 6	3.8	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	Non-Filtered BOD 60 - Reading 7	4.5	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	Non-Filtered BOD 60 - Reading 8	5.4	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	Non-Filtered BOD 60 - Reading 9	6.4	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	Non-Filtered BOD 60 - Reading 10	6.8	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16551	TRG	Non-Filtered BOD 60 - Final	7.1	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16552	TRG	Chlorophyll A (raw)	350	ug/L	445 (modifie	8/14/2003	8/15/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16552	TRG	Volume of sample, Chlorophyll A (raw)	300	ml	445 (modifie	8/14/2003	8/15/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16552	TRG	Chlorophyll A (calculated)	11.7	ug/L	445 (modifie	8/14/2003	8/19/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16565	FD	TSS	ND	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16565	FD	TDS	221	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16565	FD	Alkalinity	173	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16565	FD	Turbidity	3.1	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16565	FD	Specific Conductance	360	umho/s/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16565	FD	True Color	20	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16565	FD	Chloride, Ion Chromatograph	11.9	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16565	FD	Sulfate	4.7	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16566	FD	Sodium	11.6	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16567	FD	Hardness	167	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16567	FD	Nitrate+Nitrite Nitrogen	0.05	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16567	FD	TP	0.45	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16567	FD	TKN	0.90	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16567	FD	Ammonia-Nitrogen	0.16	ppm	350.3	8/12/2003	8/12/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16568	FD	TOC	11.4	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	pH, Ultimate BOD survey	8.25	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	TOC (60 Day BOD)	5.3	ppm	415.1	10/14/2003	10/14/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	TKN (60 Day BOD)	0.46	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	NO2NO3 - Initial Reading	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	NO2NO3 - Reading 1	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	NO2NO3 - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	NO2NO3 - Reading 3	ND	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	NO2NO3 - Reading 4	0.10	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	NO2NO3 - Reading 5	0.18	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	NO2NO3 - Reading 6	0.24	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	NO2NO3 - Reading 7	0.29	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	NO2NO3 - Reading 8	0.34	ppm	353.2	9/17/2003	9/17/2003	9/5/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	NO2NO3 - Reading 9	0.36	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	NO2NO3 - Reading 10	0.37	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	NO2NO3 - Final	0.37	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	Non-Filtered BOD 60 - Reading 1	0.5	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	Non-Filtered BOD 60 - Reading 2	1.6	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	Non-Filtered BOD 60 - Reading 3	2.1	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	Non-Filtered BOD 60 - Reading 4	3.1	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	Non-Filtered BOD 60 - Reading 5	3.5	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	Non-Filtered BOD 60 - Reading 6	4.1	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	Non-Filtered BOD 60 - Reading 7	4.9	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	Non-Filtered BOD 60 - Reading 8	5.7	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	Non-Filtered BOD 60 - Reading 9	6.6	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	Non-Filtered BOD 60 - Reading 10	7.0	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-6	Bayou Terrebonne	upstream of weir at mall Road Bridge	AF16569	FD	Non-Filtered BOD 60 - Final	7.2	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16570	TRG	TSS	8.0	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16570	TRG	TDS	229	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16570	TRG	Alkalinity	173	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16570	TRG	Turbidity	4.7	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16570	TRG	Specific Conductance	357	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16570	TRG	True Color	25	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16570	TRG	Chloride, Ion Chromatograph	11.6	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16570	TRG	Sulfate	4.9	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16571	TRG	Sodium	12.1	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road	AF16572	TRG	Hardness	168	ppm	130.2	8/8/2003	8/8/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
			Bridge										
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16572	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16572	TRG	TP	0.46	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16572	TRG	TKN	1.20	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16572	TRG	Ammonia-Nitrogen	ND	ppm	350.3	8/12/2003	8/12/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16573	TRG	TOC	11.2	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	pH, Ultimate BOD survey	8.23	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	TOC (60 Day BOD)	5.4	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	TKN (60 Day BOD)	0.77	ppm	351.2	11/3/2003	11/6/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	NO2NO3 - Initial Reading	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	NO2NO3 - Reading 1	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	NO2NO3 - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	NO2NO3 - Reading 3	ND	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	NO2NO3 - Reading 4	0.09	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	NO2NO3 - Reading 5	0.17	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	NO2NO3 - Reading 6	0.24	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	NO2NO3 - Reading 7	0.34	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	NO2NO3 - Reading 8	0.40	ppm	353.2	9/22/2003	9/22/2003	9/5/2003	
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	NO2NO3 - Reading 9	0.46	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	NO2NO3 - Reading 10	0.44	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	NO2NO3 - Final	0.44	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	Non-Filtered BOD 60 - Reading 1	1.0	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	Non-Filtered BOD 60 - Reading 2	2.8	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	Non-Filtered BOD 60 - Reading 3	3.5	ppm	5210B	8/7/2003	8/13/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	Non-Filtered BOD 60 - Reading 4	4.6	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	Non-Filtered BOD 60 - Reading 5	5.1	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	Non-Filtered BOD 60 - Reading 6	5.9	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	Non-Filtered BOD 60 - Reading 7	6.9	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	Non-Filtered BOD 60 - Reading 8	7.9	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	Non-Filtered BOD 60 - Reading 9	9.0	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	Non-Filtered BOD 60 - Reading 10	9.4	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16574	TRG	Non-Filtered BOD 60 - Final	9.8	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16575	TRG	Chlorophyll A (calculated)	10.1	ug/L	445 (modifie	8/14/2003	8/19/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16575	TRG	Volume of sample, Chlorophyll A (raw)	300	ml	445 (modifie	8/14/2003	8/15/2003		
ES2003003	BT-7	Bayou Terrebonne	downstream of weir at Mall Road Bridge	AF16575	TRG	Chlorophyll A (raw)	302	ug/L	445 (modifie	8/14/2003	8/15/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16576	TRG	TSS	14.7	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16576	TRG	TDS	193	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16576	TRG	Alkalinity	156	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16576	TRG	Turbidity	7.3	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16576	TRG	Specific Conductance	333	umho/s/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16576	TRG	True Color	30	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16576	TRG	Chloride, Ion Chromatograph	11.8	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16576	TRG	Sulfate	6.9	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16577	TRG	Sodium	11.6	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16578	TRG	Hardness	155	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16578	TRG	Nitrate+Nitrite Nitrogen	0.06	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16578	TRG	TP	0.34	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16578	TRG	TKN	1.35	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16578	TRG	Ammonia-Nitrogen	0.27	ppm	350.3	8/12/2003	8/12/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16579	TRG	TOC	12.2	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	pH, Ultimate BOD survey	8.04	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	TOC (60 Day BOD)	6.7	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	TKN (60 Day BOD)	0.55	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	NO2NO3 - Initial Reading	0.05	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	NO2NO3 - Reading 1	0.05	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	NO2NO3 - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	NO2NO3 - Reading 3	0.06	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	NO2NO3 - Reading 4	0.13	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	NO2NO3 - Reading 5	0.27	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	NO2NO3 - Reading 6	0.38	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	NO2NO3 - Reading 7	0.43	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	NO2NO3 - Reading 8	0.48	ppm	353.2	9/22/2003	9/22/2003	9/5/2003	
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	NO2NO3 - Reading 9	0.51	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	NO2NO3 - Reading 10	0.54	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	NO2NO3 - Final	0.56	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	Non-Filtered BOD 60 - Reading 1	0.7	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	Non-Filtered BOD 60 - Reading 2	2.2	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	Non-Filtered BOD 60 - Reading 3	2.8	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	Non-Filtered BOD 60 - Reading 4	4.0	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	Non-Filtered BOD 60 - Reading 5	4.7	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	Non-Filtered BOD 60 - Reading 6	5.5	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	Non-Filtered BOD 60 - Reading 7	6.4	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	Non-Filtered BOD 60 - Reading 8	7.3	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	Non-Filtered BOD 60 - Reading 9	8.5	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	Non-Filtered BOD 60 - Reading 10	9.0	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16580	TRG	Non-Filtered BOD 60 - Final	9.4	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16581	TRG	Chlorophyll A (calculated)	15.5	ug/L	(modifie	8/14/2003	8/19/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16581	TRG	Chlorophyll A (raw)	464	ug/L	(modifie	8/14/2003	8/15/2003		
ES2003003	BT-8	Bayou Terrebonne	at Funderburk Road Bridge	AF16581	TRG	Volume of sample, Chlorophyll A (raw)	300	ml	(modifie	8/14/2003	8/15/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16582	TRG	TSS	10.0	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16582	TRG	TDS	198	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16582	TRG	Alkalinity	124	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16582	TRG	Turbidity	5.3	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16582	TRG	Specific Conductance	292	umho/s/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16582	TRG	True Color	50	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16582	TRG	Chloride, Ion Chromatograph	13.4	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16582	TRG	Sulfate	9.4	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16583	TRG	Sodium	11.3	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16584	TRG	Hardness	131	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16584	TRG	Nitrate+Nitrite Nitrogen	0.05	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16584	TRG	TP	0.38	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16584	TRG	TKN	1.30	ppm	351.2	8/14/2003	8/14/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16584	TRG	Ammonia-Nitrogen	0.15	ppm	350.3	8/12/2003	8/12/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16585	TRG	TOC	14.3	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	pH, Ultimate BOD survey	7.94	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	TOC (60 Day BOD)	9.2	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	TKN (60 Day BOD)	0.63	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	NO2NO3 - Initial Reading	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	NO2NO3 - Reading 1	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	NO2NO3 - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	NO2NO3 - Reading 3	0.05	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	NO2NO3 - Reading 4	0.10	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	NO2NO3 - Reading 5	0.20	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	NO2NO3 - Reading 6	0.30	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	NO2NO3 - Reading 7	0.37	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	NO2NO3 - Reading 8	0.43	ppm	353.2	9/22/2003	9/22/2003	9/5/2003	
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	NO2NO3 - Reading 9	0.46	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	NO2NO3 - Reading 10	0.47	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	NO2NO3 - Final	0.49	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	Non-Filtered BOD 60 - Reading 1	0.9	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	Non-Filtered BOD 60 - Reading 2	2.7	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	Non-Filtered BOD 60 - Reading 3	3.4	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	Non-Filtered BOD 60 - Reading 4	4.7	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	Non-Filtered BOD 60 - Reading 5	5.4	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	Non-Filtered BOD 60 - Reading 6	6.3	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	Non-Filtered BOD 60 - Reading 7	7.3	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	Non-Filtered BOD 60 - Reading 8	8.4	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	Non-Filtered BOD 60 - Reading 9	9.8	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	Non-Filtered BOD 60 - Reading 10	10.4	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16586	TRG	Non-Filtered BOD 60 - Final	10.9	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16587	TRG	Volume of sample, Chlorophyll A (raw)	300	ml	445 (modifie	8/14/2003	8/15/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16587	TRG	Chlorophyll A (raw)	808	ug/L	445 (modifie	8/14/2003	8/15/2003		
ES2003003	BT-9	Bayou Terrebonne	at Westside Street Bridge	AF16587	TRG	Chlorophyll A (calculated)	26.9	ug/L	445 (modifie	8/14/2003	8/19/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16588	TRG	TSS	6.0	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16588	TRG	TDS	304	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16588	TRG	Alkalinity	137	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16588	TRG	Turbidity	4.4	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16588	TRG	Specific Conductance	457	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16588	TRG	True Color	30	PCU	110.2	8/7/2003	8/7/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16588	TRG	Chloride, Ion Chromatograph	50.8	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16588	TRG	Sulfate	12.8	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16589	TRG	Sodium	19.1	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16590	TRG	Hardness	189	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16590	TRG	Nitrate+Nitrite Nitrogen	0.61	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16590	TRG	TP	0.31	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16590	TRG	TKN	4.90	ppm	351.2	8/20/2003	8/20/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16590	TRG	Ammonia-Nitrogen	0.17	ppm	350.3	8/12/2003	8/12/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16591	TRG	TOC	14.6	ppm	415.1	8/14/2003	8/15/2003		
								pH					
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	pH, Ultimate BOD survey	8.00	units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	TOC (60 Day BOD)	9.5	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	TKN (60 Day BOD)	1.77	ppm	351.2	11/6/2003	11/6/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	NO ₂ NO ₃ - Initial Reading	0.64	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	NO ₂ NO ₃ - Reading 1	0.63	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	NO ₂ NO ₃ - Reading 2	0.64	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	NO ₂ NO ₃ - Reading 3	0.64	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	NO ₂ NO ₃ - Reading 4	0.63	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	NO ₂ NO ₃ - Reading 5	0.66	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	NO ₂ NO ₃ - Reading 6	0.88	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	NO ₂ NO ₃ - Reading 7	1.01	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	NO ₂ NO ₃ - Reading 8	1.17	ppm	353.2	9/22/2003	9/22/2003	9/5/2003	
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	NO ₂ NO ₃ - Reading 9	1.20	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	NO ₂ NO ₃ - Reading 10	1.23	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	NO ₂ NO ₃ - Final	1.20	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	Non-Filtered BOD 60 - Reading 1	0.1	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	Non-Filtered BOD 60 - Reading 2	1.4	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	Non-Filtered BOD 60 - Reading 3	2.0	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	Non-Filtered BOD 60 - Reading 4	2.8	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	Non-Filtered BOD 60 - Reading 5	3.2	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	Non-Filtered BOD 60 - Reading 6	4.5	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	Non-Filtered BOD 60 - Reading 7	5.7	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	Non-Filtered BOD 60 - Reading 8	7.2	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	Non-Filtered BOD 60 - Reading 9	8.4	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	Non-Filtered BOD 60 - Reading 10	9.0	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16592	TRG	Non-Filtered BOD 60 - Final	9.4	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16593	TRG	Chlorophyll A (calculated)	10.7	ug/L	445 (modifie	8/14/2003	8/19/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16593	TRG	Chlorophyll A (raw)	320	ug/L	445 (modifie	8/14/2003	8/15/2003		
ES2003003	BT-10	Bayou Terrebonne	at Hollywood Street Bridge	AF16593	TRG	Volume of sample, Chlorophyll A	300	ml	445	8/14/2003	8/15/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
						(raw)			(modified)				
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16594	TRG	TSS	4.0	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16594	TRG	TDS	201	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16594	TRG	Alkalinity	147	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16594	TRG	Turbidity	2.5	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16594	TRG	Specific Conductance	322	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16594	TRG	True Color	40	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16594	TRG	Chloride, Ion Chromatograph	12.8	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16594	TRG	Sulfate	8.3	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16595	TRG	Sodium	11.2	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16596	TRG	Hardness	149	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16596	TRG	Nitrate+Nitrite Nitrogen	0.14	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16596	TRG	TP	0.33	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16596	TRG	TKN	1.14	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16596	TRG	Ammonia-Nitrogen	0.24	ppm	350.3	8/12/2003	8/12/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16597	TRG	TOC	11.5	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	pH, Ultimate BOD survey	7.97	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	TOC (60 Day BOD)	7.1	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	TKN (60 Day BOD)	0.69	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	NO ₂ NO ₃ - Initial Reading	0.10	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	NO ₂ NO ₃ - Reading 1	0.10	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	NO ₂ NO ₃ - Reading 2	0.10	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	NO ₂ NO ₃ - Reading 3	0.15	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	NO ₂ NO ₃ - Reading 4	0.29	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	NO ₂ NO ₃ - Reading 5	0.40	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	NO ₂ NO ₃ - Reading 6	0.54	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	NO ₂ NO ₃ - Reading 7	0.58	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	NO ₂ NO ₃ - Reading 8	0.64	ppm	353.2	9/22/2003	9/22/2003	9/5/2003	
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	NO ₂ NO ₃ - Reading 9	0.66	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	NO ₂ NO ₃ - Reading 10	0.69	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	NO ₂ NO ₃ - Final	0.67	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	Non-Filtered BOD 60 - Reading 1	0.8	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	Non-Filtered BOD 60 - Reading 2	2.3	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	Non-Filtered BOD 60 - Reading 3	3.1	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	Non-Filtered BOD 60 - Reading 4	4.4	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	Non-Filtered BOD 60 - Reading 5	4.9	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	Non-Filtered BOD 60 - Reading 6	5.7	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	Non-Filtered BOD 60 - Reading 7	6.5	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	Non-Filtered BOD 60 - Reading 8	7.2	ppm	5210B	8/7/2003	9/5/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	Non-Filtered BOD 60 - Reading 9	8.4	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	Non-Filtered BOD 60 - Reading 10	8.8	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16598	TRG	Non-Filtered BOD 60 - Final	9.2	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16599	TRG	Chlorophyll A (calculated)	9.8	ug/L	445 (modifie	8/28/2003	8/29/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16599	TRG	Chlorophyll A (raw)	294	ug/L	445 (modifie	8/28/2003	8/29/2003		
ES2003003	BT-11	Bayou Terrebonne	at Morgan Street Bridge	AF16599	TRG	Volume of sample, Chlorophyll A (raw)	300	ml	445 (modifie	8/28/2003	8/29/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16600	TRG	TSS	12.7	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16600	TRG	TDS	189	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16600	TRG	Alkalinity	135	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16600	TRG	Turbidity	10	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16600	TRG	Specific Conductance	300	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16600	TRG	True Color	40	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16600	TRG	Chloride, Ion Chromatograph	11.1	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16600	TRG	Sulfate	9.0	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16601	TRG	Sodium	10.5	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16602	TRG	Hardness	138	ppm	130.2	8/11/2003	8/11/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16602	TRG	Nitrate+Nitrite Nitrogen	0.11	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16602	TRG	TP	0.31	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16602	TRG	TKN	1.24	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16602	TRG	Ammonia-Nitrogen	0.37	ppm	350.3	8/13/2003	8/13/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16603	TRG	TOC	10.4	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	pH, Ultimate BOD survey	8.11	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	TOC (60 Day BOD)	7.0	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	TKN (60 Day BOD)	0.48	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	NO2NO3 - Initial Reading	0.10	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	NO2NO3 - Reading 1	0.09	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	NO2NO3 - Reading 2	0.10	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	NO2NO3 - Reading 3	0.17	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	NO2NO3 - Reading 4	0.41	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	NO2NO3 - Reading 5	0.49	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	NO2NO3 - Reading 6	0.64	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	NO2NO3 - Reading 7	0.69	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	NO2NO3 - Reading 8	0.75	ppm	353.2	9/22/2003	9/22/2003	9/5/2003	
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	NO2NO3 - Reading 9	0.76	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	NO2NO3 - Reading 10	0.79	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	NO2NO3 - Final	0.77	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	Non-Filtered BOD 60 - Reading 1	0.9	ppm	5210B	8/8/2003	8/8/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	Non-Filtered BOD 60 - Reading 2	2.4	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	Non-Filtered BOD 60 - Reading 3	3.4	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	Non-Filtered BOD 60 - Reading 4	5.0	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	Non-Filtered BOD 60 - Reading 5	5.7	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	Non-Filtered BOD 60 - Reading 6	6.4	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	Non-Filtered BOD 60 - Reading 7	7.3	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	Non-Filtered BOD 60 - Reading 8	8.2	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	Non-Filtered BOD 60 - Reading 9	9.2	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	Non-Filtered BOD 60 - Reading 10	9.8	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16604	TRG	Non-Filtered BOD 60 - Final	10	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16605	TRG	Chlorophyll A (calculated)	12.0	ug/L	445 (modifie	8/28/2003	8/29/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16605	TRG	Volume of sample, Chlorophyll A (raw)	300	ml	445 (modifie	8/28/2003	8/29/2003		
ES2003003	BT-12	Bayou Terrebonne	at Gabasse Street Bridge	AF16605	TRG	Chlorophyll A (raw)	361	ug/L	445 (modifie	8/28/2003	8/29/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16606	FB	TSS	ND	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16606	FB	TDS	ND	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16606	FB	Alkalinity	ND	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16606	FB	Turbidity	ND	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16606	FB	Specific Conductance	ND	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16606	FB	True Color	ND	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16606	FB	Chloride, Ion Chromatograph	1.5	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16606	FB	Sulfate	ND	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16607	FB	Sodium	ND	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16608	FB	Hardness	ND	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16608	FB	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16608	FB	TP	ND	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16608	FB	TKN	0.15	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16608	FB	Ammonia-Nitrogen	ND	ppm	350.3	8/13/2003	8/13/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16609	FB	TOC	ND	ppm	415.1	8/14/2003	8/15/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	pH, Ultimate BOD survey	7.93	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	TOC (60 Day BOD)	ND	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	TKN (60 Day BOD)	0.17	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	NO2NO3 - Initial Reading	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	NO2NO3 - Reading 1	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	NO2NO3 - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	NO2NO3 - Reading 3	ND	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	NO2NO3 - Reading 4	ND	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	NO2NO3 - Reading 5	ND	ppm	353.2	9/24/2003	9/24/2003	8/18/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	NO2NO3 - Reading 6	ND	ppm	353.2	9/24/2003	9/24/2003	8/22/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	NO2NO3 - Reading 7	ND	ppm	353.2	9/24/2003	9/24/2003	8/27/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	NO2NO3 - Reading 8	ND	ppm	353.2	9/22/2003	9/22/2003	9/5/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	NO2NO3 - Reading 9	ND	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	NO2NO3 - Reading 10	ND	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	NO2NO3 - Final	ND	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	Non-Filtered BOD 60 - Reading 1	0.0	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	Non-Filtered BOD 60 - Reading 2	0.0	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	Non-Filtered BOD 60 - Reading 3	0.3	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	Non-Filtered BOD 60 - Reading 4	0.8	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	Non-Filtered BOD 60 - Reading 5	0.6	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	Non-Filtered BOD 60 - Reading 6	0.6	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	Non-Filtered BOD 60 - Reading 7	0.9	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	Non-Filtered BOD 60 - Reading 8	1.0	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou	AF16610	FB	Non-Filtered BOD 60 - Reading 9	1.4	ppm	5210B	8/7/2003	9/16/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
			Terrebonne										
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	Non-Filtered BOD 60 - Reading 10	1.5	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16610	FB	Non-Filtered BOD 60 - Final	1.3	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16615	TRG	TSS	40.0	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16615	TRG	TDS	167	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16615	TRG	Alkalinity	86.2	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16615	TRG	Turbidity	22	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16615	TRG	Specific Conductance	269	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16615	TRG	True Color	25	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16615	TRG	Chloride, Ion Chromatograph	18.5	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16615	TRG	Sulfate	23.0	ppm	300.0	8/16/2003	8/16/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16616	TRG	Sodium	15.1	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16617	TRG	Hardness	107	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16617	TRG	Nitrate+Nitrite Nitrogen	0.58	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16617	TRG	TP	0.18	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16617	TRG	TKN	1.19	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16617	TRG	Ammonia-Nitrogen	0.14	ppm	350.3	8/13/2003	8/13/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16618	TRG	TOC	8.7	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	pH, Ultimate BOD survey	7.73	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	TOC (60 Day BOD)	5.7	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	TKN (60 Day BOD)	0.79	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	NO2NO3 - Initial Reading	0.60	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	NO2NO3 - Reading 1	0.60	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	NO2NO3 - Reading 2	0.72	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	NO2NO3 - Reading 3	0.83	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	NO2NO3 - Reading 4	0.89	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	NO2NO3 - Reading 5	0.95	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	NO2NO3 - Reading 6	1.05	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	NO2NO3 - Reading 7	1.12	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	NO2NO3 - Reading 8	1.15	ppm	353.2	9/22/2003	9/22/2003	9/5/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	NO2NO3 - Reading 9	1.18	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	NO2NO3 - Reading 10	1.23	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	NO2NO3 - Final	1.17	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	Non-Filtered BOD 60 - Reading 1	0.7	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	Non-Filtered BOD 60 - Reading 2	2.8	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	Non-Filtered BOD 60 - Reading 3	4.0	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	Non-Filtered BOD 60 - Reading 4	5.2	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	Non-Filtered BOD 60 - Reading 5	5.5	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	Non-Filtered BOD 60 - Reading 6	6.1	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	Non-Filtered BOD 60 - Reading 7	6.8	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	Non-Filtered BOD 60 - Reading 8	7.6	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	Non-Filtered BOD 60 - Reading 9	8.7	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	Non-Filtered BOD 60 - Reading 10	9.2	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16619	TRG	Non-Filtered BOD 60 - Final	9.4	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16620	TRG	Chlorophyll A (calculated)	22.1	ug/L	445 (modifie	8/28/2003	8/29/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16620	TRG	Chlorophyll A (raw)	664	ug/L	445 (modifie	8/28/2003	8/29/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16620	TRG	Volume of sample, Chlorophyll A (raw)	300	ml	445 (modifie	8/28/2003	8/29/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou	AF16621	FD	TSS	38.7	ppm	160.2	8/7/2003	8/8/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
			Terrebonne										
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16621	FD	TDS	164	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16621	FD	Alkalinity	86.2	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16621	FD	Turbidity	22	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16621	FD	Specific Conductance	269	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16621	FD	True Color	30	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16621	FD	Chloride, Ion Chromatograph	18.9	ppm	300.0	8/19/2003	8/19/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16621	FD	Sulfate	23.6	ppm	300.0	8/19/2003	8/19/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16622	FD	Sodium	15.3	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16623	FD	Hardness	105	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16623	FD	Nitrate+Nitrite Nitrogen	0.58	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16623	FD	TP	0.17	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16623	FD	TKN	1.19	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16623	FD	Ammonia-Nitrogen	0.14	ppm	350.3	8/13/2003	8/13/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16624	FD	TOC	8.2	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	pH, Ultimate BOD survey	7.92	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	TOC (60 Day BOD)	5.8	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	TKN (60 Day BOD)	0.80	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	NO2NO3 - Initial Reading	0.59	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	NO2NO3 - Reading 1	0.61	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	NO2NO3 - Reading 2	0.72	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	NO2NO3 - Reading 3	0.81	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	NO2NO3 - Reading 4	0.87	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	NO2NO3 - Reading 5	0.92	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	NO2NO3 - Reading 6	1.01	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	NO2NO3 - Reading 7	1.05	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	NO2NO3 - Reading 8	1.09	ppm	353.2	9/22/2003	9/22/2003	9/5/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	NO2NO3 - Reading 9	1.10	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	NO2NO3 - Reading 10	1.13	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	NO2NO3 - Final	1.08	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	Non-Filtered BOD 60 - Reading 1	0.6	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	Non-Filtered BOD 60 - Reading 2	2.6	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	Non-Filtered BOD 60 - Reading 3	3.7	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	Non-Filtered BOD 60 - Reading 4	4.8	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	Non-Filtered BOD 60 - Reading 5	5.1	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	Non-Filtered BOD 60 - Reading 6	5.4	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	Non-Filtered BOD 60 - Reading 7	6.2	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	Non-Filtered BOD 60 - Reading 8	7.0	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	Non-Filtered BOD 60 - Reading 9	7.9	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	Non-Filtered BOD 60 - Reading 10	8.4	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	ICWW-1	Intracoastal Waterway	near confluence with Bayou Terrebonne	AF16625	FD	Non-Filtered BOD 60 - Final	8.6	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16626	TRG	TSS	8.0	ppm	160.2	8/7/2003	8/8/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16626	TRG	TDS	179	ppm	160.1	8/7/2003	8/8/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16626	TRG	Alkalinity	119	ppm	310.1	8/12/2003	8/12/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16626	TRG	Turbidity	6.0	NTU	SM 2130B	8/7/2003	8/7/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16626	TRG	Specific Conductance	272	umhos/cm	120.1	8/12/2003	8/12/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16626	TRG	True Color	55	PCU	110.2	8/7/2003	8/7/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy	AF16626	TRG	Chloride, Ion Chromatograph	10.5	ppm	300.0	8/19/2003	8/19/2003		

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
			3040)										
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16626	TRG	Sulfate	9.7	ppm	300.0	8/19/2003	8/19/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16627	TRG	Sodium	9.1	ppm	200.7	9/15/2003	9/15/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16628	TRG	Hardness	128	ppm	130.2	8/8/2003	8/8/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16628	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/11/2003	8/11/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16628	TRG	TP	0.37	ppm	365.4	8/14/2003	8/14/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16628	TRG	TKN	1.00	ppm	351.2	8/14/2003	8/14/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16628	TRG	Ammonia-Nitrogen	0.12	ppm	350.3	8/13/2003	8/13/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16629	TRG	TOC	13.6	ppm	415.1	8/14/2003	8/15/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	pH, Ultimate BOD survey	8.02	pH units	150.1	10/6/2003	10/6/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	TOC (60 Day BOD)	9.8	ppm	415.1	10/14/2003	10/14/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	TKN (60 Day BOD)	0.69	ppm	351.2	11/3/2003	11/4/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	NO2NO3 - Initial Reading	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	NO2NO3 - Reading 1	ND	ppm	353.2	8/27/2003	8/27/2003	8/8/2003	
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	NO2NO3 - Reading 2	ND	ppm	353.2	9/5/2003	9/5/2003	8/11/2003	
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	NO2NO3 - Reading 3	ND	ppm	353.2	9/5/2003	9/5/2003	8/13/2003	
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	NO2NO3 - Reading 4	ND	ppm	353.2	9/5/2003	9/5/2003	8/15/2003	
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	NO2NO3 - Reading 5	0.15	ppm	353.2	9/9/2003	9/9/2003	8/18/2003	
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	NO2NO3 - Reading 6	0.19	ppm	353.2	9/17/2003	9/17/2003	8/22/2003	
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	NO2NO3 - Reading 7	0.30	ppm	353.2	9/22/2003	9/22/2003	8/27/2003	
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	NO2NO3 - Reading 8	0.34	ppm	353.2	9/22/2003	9/22/2003	9/5/2003	
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	NO2NO3 - Reading 9	0.39	ppm	353.2	10/9/2003	10/9/2003	9/16/2003	
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	NO2NO3 - Reading 10	0.41	ppm	353.2	10/22/2003	10/22/2003	9/26/2003	
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	NO2NO3 - Final	0.39	ppm	353.2	10/23/2003	10/23/2003	10/6/2003	

PROJECT NUMBER	Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set_Up	Analysis_Read	Date_Nitrates_Sampled	Comments
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	Non-Filtered BOD 60 - Reading 1	0.6	ppm	5210B	8/8/2003	8/8/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	Non-Filtered BOD 60 - Reading 2	2.0	ppm	5210B	8/11/2003	8/11/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	Non-Filtered BOD 60 - Reading 3	2.4	ppm	5210B	8/7/2003	8/13/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	Non-Filtered BOD 60 - Reading 4	3.3	ppm	5210B	8/7/2003	8/15/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	Non-Filtered BOD 60 - Reading 5	4.0	ppm	5210B	8/7/2003	8/18/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	Non-Filtered BOD 60 - Reading 6	4.6	ppm	5210B	8/7/2003	8/22/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	Non-Filtered BOD 60 - Reading 7	5.6	ppm	5210B	8/7/2003	8/27/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	Non-Filtered BOD 60 - Reading 8	6.6	ppm	5210B	8/7/2003	9/5/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	Non-Filtered BOD 60 - Reading 9	7.8	ppm	5210B	8/7/2003	9/16/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	Non-Filtered BOD 60 - Reading 10	8.4	ppm	5210B	8/7/2003	9/26/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16630	TRG	Non-Filtered BOD 60 - Final	8.8	ppm	5210B	8/7/2003	10/6/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16631	TRG	Chlorophyll A (raw)	157	ug/L	445 (modifie	8/28/2003	8/29/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16631	TRG	Chlorophyll A (calculated)	5.2	ug/L	445 (modifie	8/28/2003	8/29/2003		
ES2003003	BC-1	Bayou Cane	at Martin Luther King Blvd (LA Hwy 3040)	AF16631	TRG	Volume of sample, Chlorophyll A (raw)	300	ml	445 (modifie	8/28/2003	8/29/2003		

Bayou Terrebonne Insitu Data													
Subsegment 120301													
Survey Date 8/6/03													
Site Number	Site Description	Collection Date	Collection Time	Gage Height (ft)	Sample Depth (m)	pH (SU)	Temp (deg C)	DO (mg/L)	Conduc-tivity (uhoms/cm)	Secchi Disc Depth (inches)	Oil Sheen Present	Salinity (ppt)	% Saturated DO
BT-1	Bayou Terrebonne at Ducros Road/Devil's Swamp Road Brige	8/6/2003	11:15	5.58	0.15	7.24	30.52	2.53	447.2	12	N	0.22	33.3
BT-2	Bayou Terrebonne at Price School Road Bridge	8/6/2003	10:55	3.2	0.3	7.17	28.25	0.24	429.8	11.8	Y	0.22	2.8
BT-3	Bayou Terrebonne at Recreation Road Bridge	8/6/2003	10:30	2.7	0.3	7.27	28.53	1.59	430.8	24	Y	0.22	21.8
BT-4	Bayou Terrebonne upstream of weir at North Terrebonne Road Bridge	8/6/2003	9:00	7.47	0.75	7.18	28.84	1.71	381.2	30	N	0.19	22.9
BT-5	Bayou Terrebonne downstream of weir at North Terrebonne Road Bridge	8/6/2003	9:15	7.47	1.0	7.17	28.74	1.57	384.6	42	N	0.19	20.0
BT-5A	Bayou Terrebonne 80 yards downstream Coteau Road Bridge	8/6/2003	13:00	7.5	0.45	7.11	29.40	3.25	390.2	30.0	N	0.19	42.5
BT-6	Bayou Terrebonne upstream of weir at mall Road Bridge	8/6/2003	7:30	6.72	0.75	7.07	28.90	0.77	359.6	30.0	N	0.18	9.9

Bayou Terrebonne Insitu Data													
Subsegment 120301													
Survey Date 8/6/03													
Site Number	Site Description	Collection Date	Collection Time	Gage Height (ft)	Sample Depth (m)	pH (SU)	Temp (deg C)	DO (mg/L)	Conduc-tivity (uhoms/cm)	Secchi Disc Depth (inches)	Oil Sheen Present	Salinity (ppt)	% Saturated DO
BT-7	Bayou Terrebonne downstream of weir at Mall Road Bridge	8/6/2003	9:15		0.43	7.02	29.20	0.95	361.5	30	N	0.18	12.2
BT-8	Bayou Terrebonne at Funderburk Road Bridge	8/6/2003	10:30	7.45	1.0	7.00	29.69	4.42	338.2	36	N	0.17	58.2
BT-9	Bayou Terrebonne at Westside Street Bridge	8/6/2003	11:30	7.00	0.40	6.90	29.59	1.18	288.7	30.0	N	0.14	16.3
BT-10	Bayou Terrebonne at Hollywood Street Bridge	8/6/2003	12:30	6.45	0.60	7.03	30.21	2.40		36.0		0.20	32.2
BT-11	Bayou Terrebonne at Morgan Street Bridge	8/6/2003	10:35		1.0	7.14	30.06	1.50	334.3	48.0	N	.16	20.0
BT-12	Bayou Terrebonne at Gabasse Street Bridge	8/6/2003	10:05		1.0	7.13	30.02	1.17	310.4	29.5	N	.15	15.5
BC-1	Bayou Cane at Martin Luther King Blvd (LA Hwy 3040)	8/6/2003	8:00		1.0	6.93	29.18	1.49	272.4	30	N	0.13	18.2
ICWW-1	Intracoastal Waterway near confluence with Bayou Terrebonne	8/6/2003	9:00	2.58	1.0	7.30	31.26	3.81	276.7	17.7	N	.13	51.4

APPENDIX H2 – CROSS SECTIONS AND DISCHARGE MEASUREMENTS

Bayou Terrebonne Cross Sections					
Survey Date 8/6/03					
Site ID	DATE	Width (ft)	Width (m)	Depth (ft)	Depth (m)
BC-01	8/5/2003	54.0	16.46	3.59	1.09
BT-01	8/5/2003	38.0	11.58	1.43	0.44
BT-02	8/5/2003	54.0	16.46	1.31	0.40
BT-03	8/5/2003	58.0	17.68	1.21	0.37
BT-04	8/5/2003	58.0	17.68	1.19	0.36
BT-05	8/5/2003	48.5	14.78	3.83	1.17
BT-05A above weir	8/6/2003	54.0	16.46	1.61	0.49
BT-05A below weir	8/6/2003	54.0	16.46	5.19	1.58
BT-06	8/5/2003	58.0	17.68	3.12	0.95
BT-07	8/5/2003	47.0	14.32	2.49	0.76
BT-08	8/5/2003	47.0	14.32	2.85	0.87
BT-09	8/5/2003	47.0	14.32	2.32	0.71
BT-10	8/5/2003	48.0	14.63	2.9	0.88
BT-11	8/5/2003	62.0	18.90	5.45	1.66
BT-12	8/5/2003	75.0	22.86	4.48	1.37
ICWW North of BT	8/5/2003	150.0	45.72	14.21	4.33
ICWW South of BT	8/5/2003	265.0	80.77	10.6	3.23

Bayou Terrebonne Discharge Measurements											
Survey Date 8/6/03											
Acoustic Doppler	Site ID	Date	Time	Width (ft)	Width (m)	Depth (ft)	Depth (m)	Velocity (ft/sec)	Velocity (m/sec)	Stream Flow (cfs)	Stream Flow (cms)
	ICWW1	8/6/2003	9:26:09	158.52	48.3145	17.8873	5.45179	1.21000	0.36879	3425.23800	96.97774
Aqua Calc	BT-05 on weir	8/6/2003	9:21	8.7	2.65163	0.16552	0.05045	1.36000	0.41451	1.97000	0.05578
	BT-05 xs	8/6/2003		8.7	2.65163	0.17	0.05181				
	BT-05a on weir	8/6/2003	13:59	9.1	2.77354	0.13077	0.03986	1.03000	0.31393	1.23000	0.03482
	BT-05a xs	8/6/2003		9.1	2.77354	0.13	0.03962				
	BT-06 on weir	8/6/2003	9:33	6.9	2.10302	0.24203	0.07377	0.46000	0.14020	0.76000	0.02152
	BT-06 xs	8/6/2003		6.9	2.10302	0.24	0.07315				

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

STREAM CROSS-SECTION SPREADSHEET																					
Site Number: BC-01		Subsegment: 120301		Waterbody: Bayou Cane																	
Site Description: b/w pumps & unnamed trib																					
Type of Equipment:	<input type="checkbox"/> Fathometer	<input type="checkbox"/> Hydrotac	<input checked="" type="checkbox"/> Manual																		
Initial Bank:	<input checked="" type="checkbox"/> RDB <input type="checkbox"/> LDB																				
Tapedown:	N/A																				
Gauge Height:	N/A																				
Date: 8/5/2003																					
Element #	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6,7}																
1	3.0	1.50	0.00	0.00	0.00%																
2	6.0	3.00	0.80	2.40	1.24%																
3	9.0	3.00	1.90	5.70	2.94%																
4	12.0	3.00	2.20	6.60	3.40%																
5	15.0	3.00	2.40	7.20	3.71%																
6	18.0	3.00	4.60	13.80	7.12%																
7	21.0	3.00	5.70	17.10	8.82%																
8	24.0	3.00	6.00	18.00	9.28%																
9	27.0	3.00	6.10	18.30	9.44%																
10	30.0	3.00	5.90	17.70	9.13%																
11	33.0	3.00	5.60	16.80	8.66%																
12	36.0	3.00	5.60	16.80	8.66%																
13	39.0	3.00	5.70	17.10	8.82%																
14	42.0	2.00	5.10	10.20	5.26%																
15	43.0	1.00	4.70	4.70	2.42%																
16	44.0	1.00	2.30	2.30	1.19%																
17	45.0	2.00	2.10	4.20	2.17%																
18	48.0	3.00	2.00	6.00	3.09%																
19	51.0	3.00	1.70	5.10	2.63%																
20	54.0	3.00	1.30	3.90	2.01%																
21	57.0	1.50	0.00	0.00	0.00%																
	Total	54.00		193.90	100.00%																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">Data Collection Crew</td> <td colspan="2" style="text-align: center;">Office Data Work</td> </tr> <tr> <td>Measurement made by:</td> <td>Savant/Darsey</td> <td>Data Inputted by / Date:</td> <td>Philippe 08/15/03</td> </tr> <tr> <td>Notetaker/Recorder:</td> <td>Philippe</td> <td>Data Input Checked by / Date:</td> <td>Darsey 08/19/03</td> </tr> <tr> <td>Other:</td> <td></td> <td></td> <td></td> </tr> </table>				Data Collection Crew		Office Data Work		Measurement made by:	Savant/Darsey	Data Inputted by / Date:	Philippe 08/15/03	Notetaker/Recorder:	Philippe	Data Input Checked by / Date:	Darsey 08/19/03	Other:					
Data Collection Crew		Office Data Work																			
Measurement made by:	Savant/Darsey	Data Inputted by / Date:	Philippe 08/15/03																		
Notetaker/Recorder:	Philippe	Data Input Checked by / Date:	Darsey 08/19/03																		
Other:																					
<p>Note 1: WIDTH (ft) = sum of the width column Note 2: AREA (sq.ft.) = sum of the area column Note 3: AVG. DEPTH (ft) = area/width (using the values from this table) Note 4: Width of element Note 5: Area=Width*Depth for element Note 6: Percent area = element area/total area x 100% Note 7: Percent area should be less than 10% as per USGS standard. Note 8: Blank fields are cleared from all calculations. Note 9: The cross sections are taken at areas representative of the stream.</p>																					

STREAM CROSS-SECTION SPREADSHEET																					
Site Number: BT-01		Subsegment: 120301		Waterbody: Bayou Terrebonne																	
Site Description: Ducros/Devil's Swamp Road																					
Type of Equipment: <input type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotrac <input checked="" type="checkbox"/> Manual																					
Initial Bank: <input checked="" type="checkbox"/> RDB <input type="checkbox"/> LDB																					
Tapedown: 5.59 ft.																					
Guage Height: N/A																					
Date: 8/5/2003																					
Station	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft)	Area of element as % of Total Area ^{6a⁷}																
						Cross Section Chart															
1	2.0	0.25	0.00	0.00	0.00%																
2	2.5	0.50	0.10	0.05	0.09%																
3	3.0	0.50	0.50	0.25	0.46%																
4	3.5	0.50	0.80	0.40	0.73%																
5	4.0	1.25	0.90	1.13	2.07%																
6	6.0	2.00	1.20	2.40	4.41%																
7	8.0	2.00	1.40	2.80	5.14%																
8	10.0	2.00	2.60	5.20	9.55%																
9	12.0	1.50	2.00	3.00	5.51%																
10	13.0	1.00	1.80	1.80	3.30%																
11	14.0	1.00	2.30	2.30	4.22%																
12	15.0	1.00	1.90	1.90	3.49%																
13	16.0	1.00	1.70	1.70	3.12%																
14	17.0	1.00	1.60	1.60	2.94%																
15	18.0	1.00	1.60	1.60	2.94%																
16	19.0	1.00	1.30	1.30	2.39%																
17	20.0	1.00	1.20	1.20	2.20%																
18	21.0	1.00	1.20	1.20	2.20%																
19	22.0	1.00	1.40	1.40	2.57%																
20	23.0	1.00	1.60	1.60	2.94%																
21	24.0	1.00	1.90	1.90	3.49%																
22	25.0	1.00	2.00	2.00	3.67%																
23	26.0	1.00	2.00	2.00	3.67%																
24	27.0	1.50	1.90	2.85	5.23%																
25	29.0	1.50	1.60	2.40	4.41%																
26	30.0	1.50	1.40	2.10	3.85%																
27	32.0	2.00	1.30	2.60	4.77%																
28	34.0	2.00	1.30	2.60	4.77%																
29	36.0	2.00	1.00	2.00	3.67%																
30	38.0	2.00	0.60	1.20	2.20%																
31	40.0	1.00	0.00	0.00	0.00%																
	Total	38.00		54.48	100.00%																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Data Collection Crew</th> <th colspan="2">Office Data Work</th> </tr> <tr> <td>Measurement made by:</td> <td>Savant/Darsey</td> <td>Data Inputted by / Date:</td> <td>Philippe 08/13/03</td> </tr> <tr> <td>Notetaker/Recorder:</td> <td>Phillippe</td> <td>Data Input Checked by / Date:</td> <td>Darsey 08/19/03</td> </tr> <tr> <td>Other:</td> <td></td> <td></td> <td></td> </tr> </table>				Data Collection Crew		Office Data Work		Measurement made by:	Savant/Darsey	Data Inputted by / Date:	Philippe 08/13/03	Notetaker/Recorder:	Phillippe	Data Input Checked by / Date:	Darsey 08/19/03	Other:					
Data Collection Crew		Office Data Work																			
Measurement made by:	Savant/Darsey	Data Inputted by / Date:	Philippe 08/13/03																		
Notetaker/Recorder:	Phillippe	Data Input Checked by / Date:	Darsey 08/19/03																		
Other:																					
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Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

STREAM CROSS-SECTION SPREADSHEET					
Site Number: <u>BT-02</u>		Subsegment: <u>120301</u>	Waterbody: <u>Bayou Terrebonne</u>		
Site Description: Price School Road					
Type of Equipment: <input type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotrac <input checked="" type="checkbox"/> Manual					
Initial Bank: <input checked="" type="checkbox"/> RDB <input type="checkbox"/> LDB					
Tapedown: <u>3.18 ft.</u>					
Guage Height: <u>N/A</u>					
Date: 8/5/2003					
Station Number	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft)	Area of element as % of Total Area ^{6a⁷}
1	<u>2.0</u>	<u>1.50</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00%</u>
2	<u>5.0</u>	<u>3.00</u>	<u>0.50</u>	<u>1.50</u>	<u>2.13%</u>
3	<u>8.0</u>	<u>3.00</u>	<u>1.00</u>	<u>3.00</u>	<u>4.26%</u>
4	<u>11.0</u>	<u>3.00</u>	<u>1.30</u>	<u>3.90</u>	<u>5.53%</u>
5	<u>14.0</u>	<u>3.00</u>	<u>1.50</u>	<u>4.50</u>	<u>6.38%</u>
6	<u>17.0</u>	<u>3.00</u>	<u>1.50</u>	<u>4.50</u>	<u>6.38%</u>
7	<u>20.0</u>	<u>3.00</u>	<u>1.50</u>	<u>4.50</u>	<u>6.38%</u>
8	<u>23.0</u>	<u>3.00</u>	<u>1.60</u>	<u>4.80</u>	<u>6.81%</u>
9	<u>26.0</u>	<u>3.00</u>	<u>1.60</u>	<u>4.80</u>	<u>6.81%</u>
10	<u>29.0</u>	<u>3.00</u>	<u>1.70</u>	<u>5.10</u>	<u>7.23%</u>
11	<u>32.0</u>	<u>3.00</u>	<u>1.70</u>	<u>5.10</u>	<u>7.23%</u>
12	<u>35.0</u>	<u>3.00</u>	<u>1.70</u>	<u>5.10</u>	<u>7.23%</u>
13	<u>38.0</u>	<u>3.00</u>	<u>1.50</u>	<u>4.50</u>	<u>6.38%</u>
14	<u>41.0</u>	<u>3.00</u>	<u>1.60</u>	<u>4.80</u>	<u>6.81%</u>
15	<u>44.0</u>	<u>3.00</u>	<u>1.40</u>	<u>4.20</u>	<u>5.96%</u>
16	<u>47.0</u>	<u>3.00</u>	<u>1.40</u>	<u>4.20</u>	<u>5.96%</u>
17	<u>50.0</u>	<u>3.00</u>	<u>1.20</u>	<u>3.60</u>	<u>5.11%</u>
18	<u>53.0</u>	<u>3.00</u>	<u>0.80</u>	<u>2.40</u>	<u>3.40%</u>
19	<u>56.0</u>	<u>1.50</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00%</u>
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	54.00		70.50	100.00%

Data Collection Crew		Office Data Work	
Measurement made by:	<u>Phillippe</u>	Data Inputed by / Date:	<u>Phillippe 08/13/03</u>
Notetaker/Recorder:	<u>Darsey</u>	Data Input Checked by / Date:	<u>Darsey 08/19/03</u>
Other:			

Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column
Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
Note 4: Width of element
Note 5: Area=Width*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area should be less than 10% as per USGS standard.
Note 8: Blank fields are cleared from all calculations.
Note 9: The cross sections are taken at areas representative of the stream.

Cross Section Chart

DEPTH (ft)

Distance from initial point (ft)

STREAM CROSS-SECTION SPREADSHEET					
Site Number: <u>BT-03</u>		Subsegment: <u>120301</u>		Waterbody: <u>Bayou Terrebonne</u>	
Site Description: <u>Recreation Road</u>					
Type of Equipment: <input type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotrac <input checked="" type="checkbox"/> Manual					
Initial Bank: <input checked="" type="checkbox"/> RDB <input type="checkbox"/> LDB					
Tapedown: <u>2.66 ft.</u>					
Guage Height: <u>N/A</u>					
Date: <u>8/5/2003</u>					
Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	1.0	2.50	0.00	0.00	0.00%
2	6.0	4.00	1.10	4.40	6.29%
3	9.0	3.00	1.50	4.50	6.44%
4	12.0	3.00	1.10	3.30	4.72%
5	15.0	3.00	1.30	3.90	5.58%
6	18.0	3.00	1.30	3.90	5.58%
7	21.0	3.00	1.50	4.50	6.44%
8	24.0	3.00	1.50	4.50	6.44%
9	27.0	3.00	1.30	3.90	5.58%
10	30.0	3.00	1.30	3.90	5.58%
11	33.0	3.00	1.60	4.80	6.87%
12	36.0	3.00	1.50	4.50	6.44%
13	39.0	3.00	2.00	6.00	8.58%
14	42.0	3.00	1.60	4.80	6.87%
15	45.0	3.00	1.30	3.90	5.58%
16	48.0	3.00	1.50	4.50	6.44%
17	51.0	3.00	1.00	3.00	4.29%
18	54.0	4.00	0.40	1.60	2.29%
19	59.0	2.50	0.00	0.00	0.00%
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	58.00		69.90	100.00%

Data Collection Crew	Office Data Work
Measurement made by: <u>Phillippe</u>	Data Input by / Date: <u>Phillippe 08/13/03</u>
Notetaker/Recorder: <u>Darsey</u>	Data Input Checked by / Date: <u>Darsey 08/19/03</u>
Other:	

Note 1: WIDTH (ft) = sum of the width column
 Note 2: AREA (sq.ft.) = sum of the area column
 Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
 Note 4: Width of element
 Note 5: Area=Width*Depth for element
 Note 6: Percent area = element area/total area x 100%
 Note 7: Percent area should be less than 10% as per USGS standard.
 Note 8: Blank fields are cleared from all calculations.
 Note 9: The cross sections are taken at areas representative of the stream.

Cross Section Chart

Bayou Terrebonne Watershed TMDL

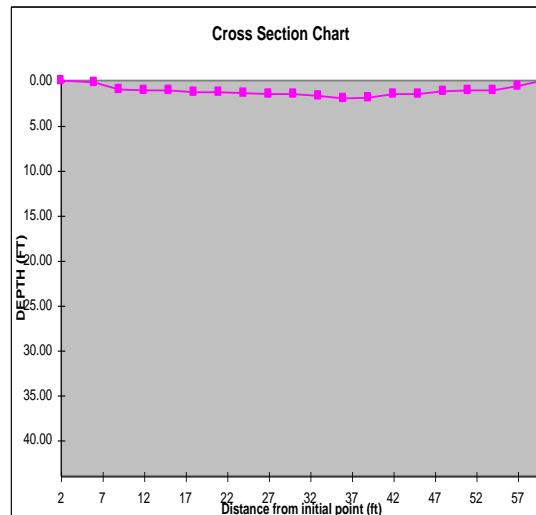
Subsegment 120301

Originated: March 19, 2008

STREAM CROSS-SECTION SPREADSHEETSite Number: BT-04 Subsegment: 120301 Waterbody: Bayou TerrebonneSite Description: North Terrebonne Road (above weir)Type of Equipment: Fathometer Hydrotac ManualInitial Bank: RDB LDBTapedown: 7.39 ft.Guage Height: N/ADate: 8/5/2003

WIDTH ¹ (ft):	58.00
AREA ² (ft ²):	69.10
AVG. DEPTH ³ (ft):	1.19

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	2.0	2.00	0.00	0.00	0.00%
2	6.0	3.50	0.20	0.70	1.01%
3	9.0	3.00	1.00	3.00	4.34%
4	12.0	3.00	1.10	3.30	4.78%
5	15.0	3.00	1.10	3.30	4.78%
6	18.0	3.00	1.30	3.90	5.64%
7	21.0	3.00	1.30	3.90	5.64%
8	24.0	3.00	1.40	4.20	6.08%
9	27.0	3.00	1.50	4.50	6.51%
10	30.0	3.00	1.50	4.50	6.51%
11	33.0	3.00	1.70	5.10	7.38%
12	36.0	3.00	2.00	6.00	8.68%
13	39.0	3.00	1.90	5.70	8.25%
14	42.0	3.00	1.50	4.50	6.51%
15	45.0	3.00	1.50	4.50	6.51%
16	48.0	3.00	1.20	3.60	5.21%
17	51.0	3.00	1.10	3.30	4.78%
18	54.0	3.00	1.10	3.30	4.78%
19	57.0	3.00	0.60	1.80	2.60%
20	60.0	1.50	0.00	0.00	0.00%
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	58.00		69.10	100.00%



Data Collection Crew	Office Data Work
Measurement made by: <u>Philippe</u>	Data Inputed by / Date: <u>Philippe 08/13/03</u>
Notetaker/Recorder: <u>Masden/Savant</u>	Data Input Checked by / Date: <u>Darsey 08/19/03</u>
Other:	

- Note 1: WIDTH (ft) = sum of the width column
 Note 2: AREA (sq.ft.) = sum of the area column
 Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
 Note 4: Width of element
 Note 5: Area=Width*Depth for element
 Note 6: Percent area = element area/total area x 100%
 Note 7: Percent area should be less than 10% as per USGS standard.
 Note 8: Blank fields are cleared from all calculations.
 Note 9: The cross sections are taken at areas representative of the stream.

Bayou Terrebonne Watershed TMDL

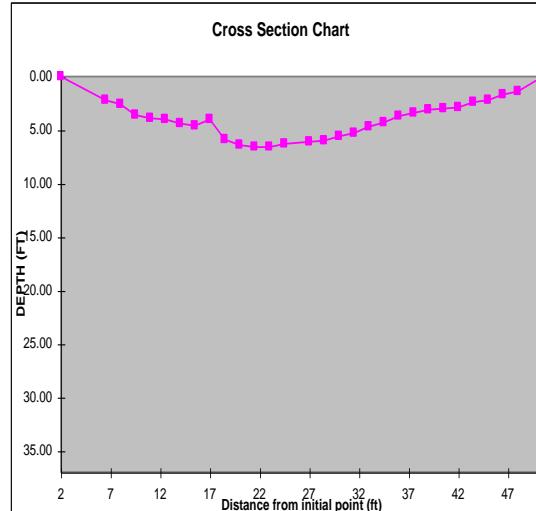
Subsegment 120301

Originated: March 19, 2008

STREAM CROSS-SECTION SPREADSHEET					
Site Number: <u>BT-05</u>		Subsegment: <u>120301</u>	Waterbody: <u>Bayou Terrebonne</u>		
Site Description: North Terrebonne Rd. (below weir)					
Type of Equipment: <input type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotac <input checked="" type="checkbox"/> Manual					
Initial Bank: <input checked="" type="checkbox"/> RDB <input type="checkbox"/> LDB					
Tapedown: <u>7.43 ft</u>					
Guage Height: <u>N/A</u>					
Date: <u>8/5/2003</u>					
Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	<u>1.5</u>	<u>2.25</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00%</u>
2	<u>6.0</u>	<u>3.00</u>	<u>2.20</u>	<u>6.60</u>	<u>3.56%</u>
3	<u>7.5</u>	<u>1.50</u>	<u>2.60</u>	<u>3.90</u>	<u>2.10%</u>
4	<u>9.0</u>	<u>1.50</u>	<u>3.60</u>	<u>5.40</u>	<u>2.91%</u>
5	<u>10.5</u>	<u>1.50</u>	<u>3.90</u>	<u>5.85</u>	<u>3.15%</u>
6	<u>12.0</u>	<u>1.50</u>	<u>4.00</u>	<u>6.00</u>	<u>3.23%</u>
7	<u>13.5</u>	<u>1.50</u>	<u>4.40</u>	<u>6.60</u>	<u>3.56%</u>
8	<u>15.0</u>	<u>1.50</u>	<u>4.60</u>	<u>6.90</u>	<u>3.72%</u>
9	<u>16.5</u>	<u>1.50</u>	<u>4.00</u>	<u>6.00</u>	<u>3.23%</u>
10	<u>18.0</u>	<u>1.50</u>	<u>5.90</u>	<u>8.85</u>	<u>4.77%</u>
11	<u>19.5</u>	<u>1.50</u>	<u>6.40</u>	<u>9.60</u>	<u>5.17%</u>
12	<u>21.0</u>	<u>1.50</u>	<u>6.60</u>	<u>9.90</u>	<u>5.34%</u>
13	<u>22.5</u>	<u>1.50</u>	<u>6.60</u>	<u>9.90</u>	<u>5.34%</u>
14	<u>24.0</u>	<u>2.00</u>	<u>6.30</u>	<u>12.60</u>	<u>6.79%</u>
15	<u>26.5</u>	<u>2.00</u>	<u>6.10</u>	<u>12.20</u>	<u>6.58%</u>
16	<u>28.0</u>	<u>1.50</u>	<u>6.00</u>	<u>9.00</u>	<u>4.85%</u>
17	<u>29.5</u>	<u>1.50</u>	<u>5.60</u>	<u>8.40</u>	<u>4.53%</u>
18	<u>31.0</u>	<u>1.50</u>	<u>5.30</u>	<u>7.95</u>	<u>4.28%</u>
19	<u>32.5</u>	<u>1.50</u>	<u>4.70</u>	<u>7.05</u>	<u>3.80%</u>
20	<u>34.0</u>	<u>1.50</u>	<u>4.30</u>	<u>6.45</u>	<u>3.48%</u>
21	<u>35.5</u>	<u>1.50</u>	<u>3.70</u>	<u>5.55</u>	<u>2.99%</u>
22	<u>37.0</u>	<u>1.50</u>	<u>3.40</u>	<u>5.10</u>	<u>2.75%</u>
23	<u>38.5</u>	<u>1.50</u>	<u>3.10</u>	<u>4.65</u>	<u>2.51%</u>
24	<u>40.0</u>	<u>1.50</u>	<u>3.00</u>	<u>4.50</u>	<u>2.43%</u>
25	<u>41.5</u>	<u>1.50</u>	<u>2.90</u>	<u>4.35</u>	<u>2.34%</u>
26	<u>43.0</u>	<u>1.50</u>	<u>2.40</u>	<u>3.60</u>	<u>1.94%</u>
27	<u>44.5</u>	<u>1.50</u>	<u>2.20</u>	<u>3.30</u>	<u>1.78%</u>
28	<u>46.0</u>	<u>1.50</u>	<u>1.70</u>	<u>2.55</u>	<u>1.37%</u>
29	<u>47.5</u>	<u>2.00</u>	<u>1.40</u>	<u>2.80</u>	<u>1.51%</u>
30	<u>50.0</u>	<u>1.25</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00%</u>
	Total	48.50		185.55	100.00%

Data Collection Crew	Office Data Work
Measurement made by: <u>Savant/Darsey</u>	Data Inputted by / Date: <u>Philippe 08/13/03</u>
Notetaker/Recorder: <u>Philippe</u>	Data Input Checked by / Date: <u>Darsey 08/19/03</u>
Other:	

Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column
Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
Note 4: Width of element
Note 5: Area=Width*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area should be less than 10% as per USGS standard.
Note 8: Blank fields are cleared from all calculations.
Note 9: The cross sections are taken at areas representative of the stream.



Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

STREAM CROSS-SECTION SPREADSHEET					
Site Number: <u>BT-05A</u>		Subsegment: <u>120301</u>		Waterbody: <u>Bayou Terrebonne</u>	
Site Description: <u>Coteau Rd (below weir)</u> Type of Equipment: <input type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotrac <input checked="" type="checkbox"/> Manual Initial Bank: <input checked="" type="checkbox"/> RDB <input type="checkbox"/> LDB Tapedown: <u>7.5 ft.</u> Guage Height: <u>N/A</u> Date: <u>8/5/2003</u>					
Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	1.0	1.50	0.00	0.00	0.00%
2	4.0	3.00	1.60	4.80	1.71%
3	7.0	3.00	3.50	10.50	3.75%
4	10.0	3.00	4.40	13.20	4.71%
5	13.0	3.00	4.90	14.70	5.25%
6	16.0	3.00	5.60	16.80	6.00%
7	19.0	3.00	6.00	18.00	6.42%
8	22.0	3.00	6.90	20.70	7.39%
9	25.0	3.00	7.70	23.10	8.24%
10	28.0	3.00	7.70	23.10	8.24%
11	31.0	3.00	7.60	22.80	8.14%
12	34.0	3.00	7.30	21.90	7.82%
13	37.0	3.00	7.20	21.60	7.71%
14	40.0	3.00	6.70	20.10	7.17%
15	43.0	3.00	5.90	17.70	6.32%
16	46.0	3.00	4.80	14.40	5.14%
17	49.0	3.00	3.40	10.20	3.64%
18	52.0	3.00	2.20	6.60	2.36%
19	55.0	1.50	0.00	0.00	0.00%
	Total	54.00		280.20	100.00%

Data Collection Crew <hr/> Measurement made by: <u>Cal Fontenot</u> Notetaker/Recorder: <u>Wendy D.</u> Other:	Office Data Work <hr/> Data Inputted by / Date: <u>Corey S.</u> Data Input Checked by / Date: <u>Darsey 08/19/03</u>
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Note 1: WIDTH (ft) = sum of the width column
 Note 2: AREA (sq.ft.) = sum of the area column
 Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
 Note 4: Width of element
 Note 5: Area=Width*Depth for element
 Note 6: Percent area = element area/total area x 100%
 Note 7: Percent area should be less than 10% as per USGS standard.
 Note 8: Blank fields are cleared from all calculations.
 Note 9: The cross sections are taken at areas representative of the stream.

Cross Section Chart

DEPTH (FT)	0.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00		
Distance from initial point (ft)	1	6	11	16	21	26	31	36	41	46	51

STREAM CROSS-SECTION SPREADSHEET					
Site Number: <u>BT-06</u>		Subsegment: <u>120301</u>		Waterbody: <u>Bayou Terrebonne</u>	
Site Description: <u>upstream of Sonic weir</u>					
Type of Equipment: <input type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotac <input checked="" type="checkbox"/> Manual					
Initial Bank: <input checked="" type="checkbox"/> RDB <input type="checkbox"/> LDB					
Tapedown: <u>6.66 ft.</u>					
Guage Height: <u>N/A</u>					
Date: <u>8/5/2003</u>					
Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	2.0	2.00	0.30	0.60	0.33%
2	6.0	4.00	1.60	6.40	3.54%
3	10.0	4.00	2.70	10.80	5.97%
4	14.0	4.00	3.00	12.00	6.63%
5	18.0	5.00	3.50	17.50	9.67%
6	24.0	5.00	3.70	18.50	10.22%
7	28.0	4.00	3.90	15.60	8.62%
8	32.0	4.00	4.00	16.00	8.84%
9	36.0	4.00	4.50	18.00	9.94%
10	40.0	4.00	4.10	16.40	9.06%
11	44.0	4.00	3.90	15.60	8.62%
12	48.0	4.00	3.80	15.20	8.40%
13	52.0	4.00	3.00	12.00	6.63%
14	56.0	4.00	1.60	6.40	3.54%
15	60.0	2.00	0.00	0.00	0.00%
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	58.00		181.00	100.00%

Data Collection Crew	Office Data Work
Measurement made by: <u>Wendy D.</u>	Data Input by / Date: <u>Corey S.</u>
Notetaker/Recorder: <u>Cal Fontenot</u>	Data Input Checked by / Date: <u>Darsey 08/19/03</u>
Other:	

Note 1: WIDTH (ft) = sum of the width column
 Note 2: AREA (sq.ft.) = sum of the area column
 Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
 Note 4: Width of element
 Note 5: Area=Width*Depth for element
 Note 6: Percent area = element area/total area x 100%
 Note 7: Percent area should be less than 10% as per USGS standard.
 Note 8: Blank fields are cleared from all calculations.
 Note 9: The cross sections are taken at areas representative of the stream.

Cross Section Chart

DEPTH (FT)

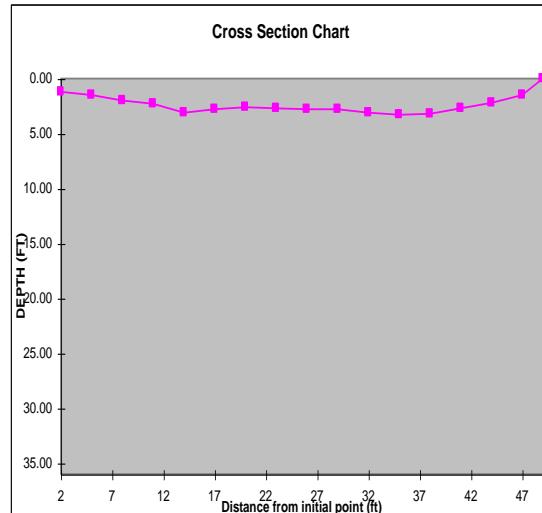
Distance from initial point (ft)

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

STREAM CROSS-SECTION SPREADSHEET					
Site Number: <u>BT-07</u>		Subsegment: <u>120301</u>		Waterbody: <u>Bayou Terrebonne</u>	
Site Description: <u>Mall Rd (below weir)</u>					
Type of Equipment: <input type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotac <input checked="" type="checkbox"/> Manual					
Initial Bank: <input checked="" type="checkbox"/> RDB <input type="checkbox"/> LDB					
Tapedown: <u>N/A</u>					
Guage Height: <u>N/A</u>					
Date: <u>8/5/2003</u>					
Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	2.0	1.50	1.20	1.80	1.54%
2	5.0	3.00	1.50	4.50	3.85%
3	8.0	3.00	2.00	6.00	5.13%
4	11.0	3.00	2.30	6.90	5.91%
5	14.0	3.00	3.10	9.30	7.96%
6	17.0	3.00	2.80	8.40	7.19%
7	20.0	3.00	2.60	7.80	6.68%
8	23.0	3.00	2.70	8.10	6.93%
9	26.0	3.00	2.80	8.40	7.19%
10	29.0	3.00	2.80	8.40	7.19%
11	32.0	3.00	3.10	9.30	7.96%
12	35.0	3.00	3.30	9.90	8.47%
13	38.0	3.00	3.20	9.60	8.22%
14	41.0	3.00	2.70	8.10	6.93%
15	44.0	3.00	2.20	6.60	5.65%
16	47.0	2.50	1.50	3.75	3.21%
17	49.0	1.00	0.00	0.00	0.00%
	Total	47.00		116.85	100.00%
Data Collection Crew			Office Data Work		
Measurement made by: <u>Wendy D.</u>			Data Inputted by / Date: <u>Corey S.</u>		
Notetaker/Recorder: <u>Cal Fontenot</u>			Data Input Checked by / Date: <u>Darsey 08/19/03</u>		
Other:					
Note 1: WIDTH (ft) = sum of the width column Note 2: AREA (sq.ft.) = sum of the area column Note 3: AVG. DEPTH (ft) = area/width (using the values from this table) Note 4: Width of element Note 5: Area=Width*Depth for element Note 6: Percent area = element area/total area x 100% Note 7: Percent area should be less than 10% as per USGS standard. Note 8: Blank fields are cleared from all calculations. Note 9: The cross sections are taken at areas representative of the stream.					



Bayou Terrebonne Watershed TMDL

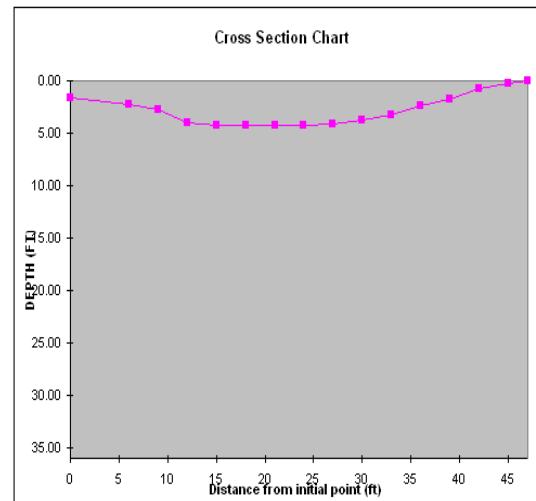
Subsegment 120301

Originated: March 19, 2008

STREAM CROSS-SECTION SPREADSHEET					
Site Number: <u>BT-08</u>		Subsegment: <u>120301</u>		Waterbody: <u>Bayou Terrebonne</u>	
Site Description: <u>Funderburk Rd.</u>					
Type of Equipment: <input type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotrac <input checked="" type="checkbox"/> Manual					
Initial Bank: <input checked="" type="checkbox"/> RDB <input type="checkbox"/> LDB		WIDTH ¹ (ft): <u>47.00</u> AREA ² (ft ²): <u>133.95</u> AVG. DEPTH ³ (ft): <u>2.85</u>			
Tapedown: <u>7.45 ft</u>					
Guage Height: <u>N/A</u>					
Date: <u>8/5/2003</u>					
Step #	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	<u>0.0</u>	<u>3.00</u>	<u>1.60</u>	<u>4.80</u>	<u>3.58%</u>
2	<u>6.0</u>	<u>4.50</u>	<u>2.20</u>	<u>9.90</u>	<u>7.39%</u>
3	<u>9.0</u>	<u>3.00</u>	<u>2.80</u>	<u>8.40</u>	<u>6.27%</u>
4	<u>12.0</u>	<u>3.00</u>	<u>4.00</u>	<u>12.00</u>	<u>8.96%</u>
5	<u>15.0</u>	<u>3.00</u>	<u>4.20</u>	<u>12.60</u>	<u>9.41%</u>
6	<u>18.0</u>	<u>3.00</u>	<u>4.20</u>	<u>12.60</u>	<u>9.41%</u>
7	<u>21.0</u>	<u>3.00</u>	<u>4.20</u>	<u>12.60</u>	<u>9.41%</u>
8	<u>24.0</u>	<u>3.00</u>	<u>4.20</u>	<u>12.60</u>	<u>9.41%</u>
9	<u>27.0</u>	<u>3.00</u>	<u>4.10</u>	<u>12.30</u>	<u>9.18%</u>
10	<u>30.0</u>	<u>3.00</u>	<u>3.70</u>	<u>11.10</u>	<u>8.29%</u>
11	<u>33.0</u>	<u>3.00</u>	<u>3.30</u>	<u>9.90</u>	<u>7.39%</u>
12	<u>36.0</u>	<u>3.00</u>	<u>2.40</u>	<u>7.20</u>	<u>5.38%</u>
13	<u>39.0</u>	<u>3.00</u>	<u>1.70</u>	<u>5.10</u>	<u>3.81%</u>
14	<u>42.0</u>	<u>3.00</u>	<u>0.70</u>	<u>2.10</u>	<u>1.57%</u>
15	<u>45.0</u>	<u>2.50</u>	<u>0.30</u>	<u>0.75</u>	<u>0.56%</u>
16	<u>47.0</u>	<u>1.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00%</u>
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	47.00		133.95	100.00%

Data Collection Crew	Office Data Work
Measurement made by: <u>Cal Fontenot</u>	Data Inputted by / Date: <u>Corey S.</u>
Note taker/Recorder: <u>Wendy D.</u>	Data Input Checked by / Date: <u>Darsey 08/19/03</u>
Other:	

Note 1: WIDTH (ft) = sum of the width column
 Note 2: AREA (sq.ft.) = sum of the area column
 Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
 Note 4: Width of element
 Note 5: Area=Width*Depth for element
 Note 6: Percent area = element area/total area x 100%
 Note 7: Percent area should be less than 10% as per USGS standard.
 Note 8: Blank fields are cleared from all calculations.
 Note 9: The cross sections are taken at areas representative of the stream.



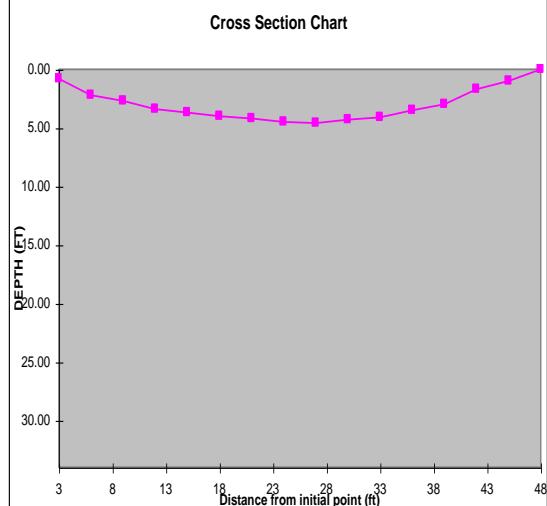
Data Collection Crew		Office Data Work	
Measurement made by:	<u>Cal Fontenot</u>	Data Inputted by / Date:	<u>Corey S.</u>
Note taker/Recorder:	<u>Wendy D.</u>	Data Input Checked by / Date:	<u>Darsey 08/19/03</u>
Other:			

STREAM CROSS-SECTION SPREADSHEET				
Site Number: <u>BT-09</u>		Subsegment: <u>120301</u>	Waterbody: <u>Bayou Terrebonne</u>	
Site Description: <u>Westside St.</u>				
Type of Equipment: <input type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotac <input checked="" type="checkbox"/> Manual Initial Bank: <input type="checkbox"/> RDB <input checked="" type="checkbox"/> LDB Tapedown: <u>6.9 ft.</u> Guage Height: <u>N/A</u> Date: <u>8/5/2003</u>				
Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
2.0	1.50	0.00	0.00	0.00%
5.0	3.00	1.40	4.20	3.85%
8.0	3.00	1.90	5.70	5.23%
11.0	3.00	2.20	6.60	6.06%
14.0	3.00	2.00	6.00	5.51%
17.0	3.00	2.10	6.30	5.78%
20.0	3.00	3.00	9.00	8.26%
23.0	3.00	3.50	10.50	9.64%
26.0	3.00	3.80	11.40	10.46%
29.0	3.00	4.00	12.00	11.01%
32.0	3.00	3.40	10.20	9.36%
35.0	3.00	3.40	10.20	9.36%
38.0	3.00	2.00	6.00	5.51%
41.0	3.00	1.80	5.40	4.96%
44.0	3.00	1.40	4.20	3.85%
47.0	2.50	0.50	1.25	1.15%
49.0	1.00	0.00	0.00	0.00%
Total	47.00		108.95	100.00%
Data Collection Crew			Office Data Work	
Measurement made by:	Cal Fontenot	Data Inputted by / Date:	Corey S.	
Notetaker/Recorder:	Wendy D.	Data Input Checked by / Date:	Darsey 08/19/03	
Other:				
<small>Note 1: WIDTH (ft) = sum of the width column Note 2: AREA (sq.ft.) = sum of the area column Note 3: AVG. DEPTH (ft) = area/width (using the values from this table) Note 4: Width of element Note 5: Area=Width*Depth for element Note 6: Percent area = element area/total area x 100% Note 7: Percent area should be less than 10% as per USGS standard. Note 8: Blank fields are cleared from all calculations. Note 9: The cross sections are taken at areas representative of the stream.</small>				

STREAM CROSS-SECTION SPREADSHEET					
Site Number: <u>BT-10</u>		Subsegment: <u>120301</u>	Waterbody: <u>Bayou Terrebonne</u>		
Site Description: <u>Hollywood Rd.</u>					
Type of Equipment: <input type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotrac <input checked="" type="checkbox"/> Manual					
Initial Bank: <input checked="" type="checkbox"/> RDB <input type="checkbox"/> LDB					
Tapedown: <u>6.5 ft.</u>					
Guage Height: <u>N/A</u>					
Date: <u>8/5/2003</u>					
Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	0.0	1.50	0.00	0.00	
2	3.0	3.00	0.80	2.40	1.72%
3	6.0	3.00	2.20	2.70	1.94%
4	9.0	3.00	2.70	8.10	5.82%
5	12.0	3.00	3.40	10.20	7.33%
6	15.0	3.00	3.70	11.10	7.97%
7	18.0	3.00	4.00	12.00	8.62%
8	21.0	3.00	4.20	12.60	9.05%
9	24.0	3.00	4.50	13.50	9.70%
10	27.0	3.00	4.60	13.80	9.91%
11	30.0	3.00	4.30	12.90	9.27%
12	33.0	3.00	4.10	12.30	8.84%
13	36.0	3.00	3.50	10.50	7.54%
14	39.0	3.00	3.00	9.00	6.47%
15	42.0	3.00	1.70	5.10	3.66%
16	45.0	3.00	1.00	3.00	2.16%
17	48.0	1.50	0.00	0.00	0.00%
	Total	48.00		139.20	100.00%

Data Collection Crew		Office Data Work	
Measurement made by:	<u>Wendy</u>	Data Inputted by / Date:	<u>Corey</u>
Notetaker/Recorder:	<u>Cal</u>	Data Input Checked by / Date:	<u>Darsey 08/19/03</u>
Other:			

Note 1: WIDTH (ft) = sum of the width column
 Note 2: AREA (sq.ft.) = sum of the area column
 Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
 Note 4: Width of element
 Note 5: Area=Width*Depth for element
 Note 6: Percent area = element area/total area x 100%
 Note 7: Percent area should be less than 10% as per USGS standard.
 Note 8: Blank fields are cleared from all calculations.
 Note 9: The cross sections are taken at areas representative of the stream.



Cross Section Chart

DEPTH (ft)

Distance from initial point (ft)

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

STREAM CROSS-SECTION SPREADSHEET

Site Number: BT11 Subsegment: 120301 Waterbody: Bayou Terrebonne

Site Description: d/s of Morgan St. bridge

Type of Equipment: Fathometer Hydrotac ManualInitial Bank: RDB LDB

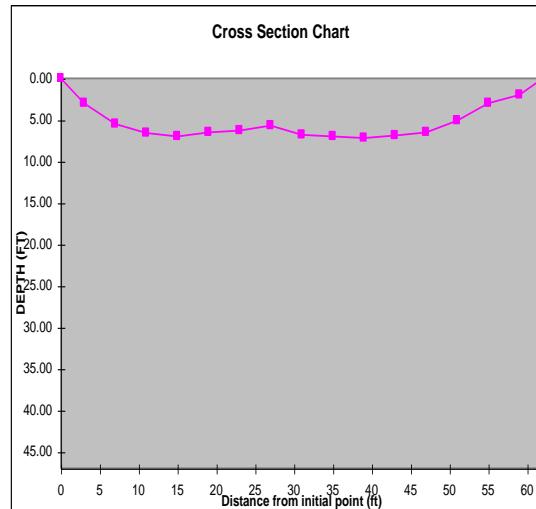
Tapedown: N/A

Guage Height: N/A

Date: 8/5/2003

WIDTH ¹ (ft):	62.00
AREA ² (ft ²):	337.90
AVG. DEPTH ³ (ft):	5.45

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	0.0	1.50	0.00	0.00	
2	3.0	3.50	3.00	10.50	3.11%
3	7.0	4.00	5.50	22.00	6.51%
4	11.0	4.00	6.60	26.40	7.81%
5	15.0	4.00	7.00	28.00	8.29%
6	19.0	4.00	6.50	26.00	7.69%
7	23.0	4.00	6.30	25.20	7.46%
8	27.0	4.00	5.70	22.80	6.75%
9	31.0	4.00	6.80	27.20	8.05%
10	35.0	4.00	7.00	28.00	8.29%
11	39.0	4.00	7.20	28.80	8.52%
12	43.0	4.00	6.90	27.60	8.17%
13	47.0	4.00	6.50	26.00	7.69%
14	51.0	4.00	5.10	20.40	6.04%
15	55.0	4.00	3.00	12.00	3.55%
16	59.0	3.50	2.00	7.00	2.07%
17	62.0	1.50	0.00	0.00	0.00%
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	62.00		337.90	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Boffy/Fontenot	Data Inputed by / Date:	Boffy
Notetaker/Recorder:	Boffy/Fontenot	Data Input Checked by / Date:	Phillippe 08/19/03
Other:			

Note 1: WIDTH (ft) = sum of the width column

Note 2: AREA (sq.ft.) = sum of the area column

Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)

Note 4: Width of element

Note 5: Area=Width*Depth for element

Note 6: Percent area = element area/total area x 100%

Note 7: Percent area should be less than 10% as per USGS standard.

Note 8: Blank fields are cleared from all calculations.

Note 9: The cross sections are taken at areas representative of the stream.

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

STREAM CROSS-SECTION SPREADSHEET					
Site Number: <u>BT12</u>		Subsegment: <u>120301</u>		Waterbody: <u>Bayou Terrebonne</u>	
Site Description: <u>u/s of Gabasse St. bridge</u>					
Type of Equipment: <input checked="" type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotrac <input type="checkbox"/> Manual					
Initial Bank: <input type="checkbox"/> RDB <input checked="" type="checkbox"/> LDB					
Tapedown: <u>N/A</u>					
Guage Height: <u>N/A</u>					
Date: <u>8/5/2003</u>					
Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	0.0	0.50	0.00	0.00	
2	1.0	2.98	3.70	11.01	3.28%
3	6.0	4.95	3.80	18.81	5.60%
4	10.9	4.95	4.20	20.79	6.19%
5	15.9	4.95	4.60	22.77	6.78%
6	20.8	4.95	5.00	24.75	7.37%
7	25.8	4.95	5.20	25.74	7.67%
8	30.7	4.95	5.40	26.73	7.96%
9	35.7	4.95	5.60	27.72	8.26%
10	40.6	4.95	5.90	29.21	8.70%
11	45.6	4.95	5.60	27.72	8.26%
12	50.5	4.95	5.20	25.74	7.67%
13	55.5	4.95	4.50	22.28	6.63%
14	60.4	5.78	3.70	21.37	6.36%
15	67.0	5.79	3.30	19.11	5.69%
16	72.0	4.00	3.00	12.00	3.57%
17	75.0	1.51	0.00	0.00	0.00%
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	75.00		335.73	100.00%

Data Collection Crew	Office Data Work
Measurement made by: <u>Boffy/Fontenot</u>	Data Inputted by / Date: <u>Boffy</u>
Notetaker/Recorder: <u>Boffy/Fontenot</u>	Data Input Checked by / Date: <u>Phillippe 08/19/03</u>
Other:	

Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column
Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
Note 4: Width of element
Note 5: Area=Width*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area should be less than 10% as per USGS standard.
Note 8: Blank fields are cleared from all calculations.
Note 9: The cross sections are taken at areas representative of the stream.

Cross Section Chart

DEPTH (ft)

Distance from initial point (ft)

STREAM CROSS-SECTION SPREADSHEET					
Site Number: <u>ICWW1</u>		Subsegment: <u>120301</u>	Waterbody: <u>Intracoastal Waterway</u>		
Site Description: <u>ICWW d/s Bayou Terrebonne</u> (north of BT) Type of Equipment: <input checked="" type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotac <input type="checkbox"/> Manual Initial Bank: <input type="checkbox"/> RDB <input checked="" type="checkbox"/> LDB Tapedown: <u>2.55 ft</u> Gauge Height: <u>N/A</u> Date: <u>8/5/2003</u>					
					WIDTH¹ (ft): <u>150.00</u> AREA² (ft²): <u>2131.00</u> AVG. DEPTH³(ft): <u>14.21</u>
Sample #	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	0.0	2.00	0.00	0.00	
2	4.0	5.92	5.00	29.58	1.39%
3	11.8	7.83	5.60	43.85	2.06%
4	19.7	7.83	6.60	51.68	2.43%
5	27.5	7.83	9.80	76.73	3.60%
6	35.3	9.14	12.20	111.45	5.23%
7	45.8	9.14	15.10	137.94	6.47%
8	53.6	7.83	18.30	143.29	6.72%
9	61.4	7.83	19.90	155.82	7.31%
10	69.3	7.83	20.80	162.86	7.64%
11	77.1	7.83	20.20	158.17	7.42%
12	84.9	7.83	19.70	154.25	7.24%
13	92.7	7.83	18.80	147.20	6.91%
14	100.6	7.83	19.80	155.03	7.28%
15	108.4	7.83	19.90	155.82	7.31%
16	116.2	7.83	19.70	154.25	7.24%
17	124.1	7.83	17.10	133.89	6.28%
18	131.9	7.83	10.00	78.30	3.67%
19	139.7	6.56	7.40	48.51	2.28%
20	145.0	5.14	6.30	32.38	1.52%
21	150.0	2.50	0.00	0.00	0.00%
	Total	150.00		2131.00	100.00%

Data Collection Crew	Office Data Work
Measurement made by: <u>Boffy/Fontenot</u>	Data Inputted by / Date: <u>Boffy</u>
Notetaker/Recorder: <u>Boffy/Fontenot</u>	Data Input Checked by / Date: <u>Philippe 08/19/03</u>
Other:	

Note 1: WIDTH (ft) = sum of the width column
 Note 2: AREA (sq.ft.) = sum of the area column
 Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
 Note 4: Width of element
 Note 5: Area=Width*Depth for element
 Note 6: Percent area = element area/total area x 100%
 Note 7: Percent area should be less than 10% as per USGS standard.
 Note 8: Blank fields are cleared from all calculations.
 Note 9: The cross sections are taken at areas representative of the stream.

Cross Section Chart

STREAM CROSS-SECTION SPREADSHEET					
Site Number: <u>ICWW1</u>		Subsegment: <u>120301</u>		Waterbody: <u>Intracoastal Waterway</u>	
Site Description: <u>ICWW u/s of Bayou Terrebonne</u> (south of BT)					
Type of Equipment: <input checked="" type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotac <input type="checkbox"/> Manual					
Initial Bank: <input type="checkbox"/> RDB <input checked="" type="checkbox"/> LDB					
Tapedown: <u>2.55 ft</u>					
Guage Height: <u>N/A</u>					
Date: <u>8/5/2003</u>					
Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	0.0	3.00	0.00	0.00	
2	6.0	7.85	5.00	39.23	1.40%
3	15.7	9.69	4.60	44.57	1.59%
4	25.4	9.69	5.60	54.26	1.93%
5	35.1	9.69	7.00	67.83	2.41%
6	44.8	9.69	6.80	65.89	2.35%
7	54.5	9.69	7.20	69.77	2.48%
8	64.1	14.54	8.20	119.19	4.24%
9	83.5	16.15	15.50	250.33	8.91%
10	96.4	11.31	18.90	213.66	7.61%
11	106.1	9.69	20.10	194.77	6.93%
12	115.8	9.69	19.80	191.86	6.83%
13	125.5	9.69	19.80	191.86	6.83%
14	135.2	9.69	19.50	188.96	6.73%
15	144.9	9.69	18.50	179.27	6.38%
16	154.6	9.69	16.60	160.85	5.73%
17	164.3	9.69	14.60	141.47	5.04%
18	174.0	9.69	13.50	130.82	4.66%
19	183.7	9.69	12.20	118.22	4.21%
20	193.3	9.69	10.30	99.81	3.55%
21	203.0	9.69	9.20	89.15	3.17%
22	212.7	9.69	6.50	62.99	2.24%
23	222.4	9.69	4.80	46.51	1.66%
24	232.1	9.69	3.20	31.01	1.10%
25	241.8	9.69	2.60	25.19	0.90%
26	251.5	8.11	2.30	18.64	0.66%
27	258.0	6.76	1.90	12.84	0.46%
28	265.0	3.50	0.00	0.00	0.00%
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	265.00		2808.94	100.00%

Data Collection Crew	Office Data Work
Measurement made by: <u>Boffy/Fontenot</u>	Data Input by / Date: <u>Boffy</u>
Notetaker/Recorder: <u>Boffy/Fontenot</u>	Data Input Checked by / Date: <u>Phillippe 08/19/03</u>
Other:	

Note 1: WIDTH (ft) = sum of the width column
 Note 2: AREA (sq.ft.) = sum of the area column
 Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
 Note 4: Width of element
 Note 5: Area=Width*Depth for element
 Note 6: Percent area = element area/total area x 100%
 Note 7: Percent area should be less than 10% as per USGS standard.
 Note 8: Blank fields are cleared from all calculations.
 Note 9: The cross sections are taken at areas representative of the stream.

Cross Section Chart

APPENDIX H3 – FIELD NOTES

Bayou Terrebonne TMDL Survey
Final Report

08/19/03

General

The Watershed Surveys group conducted this survey on August 06, 2003. The subsegment 120301 (Bayou Terrebonne, from Thibodaux to boundary between segments 1203 and 1206 at Houma) is located in the Terrebonne River Basin. Bayou Terrebonne flows generally south-southeast from Thibodaux to the Gulf of Mexico. This survey focused specifically on the reach of Bayou Terrebonne between Thibodaux and the Intracoastal Waterway in Houma. This subsegment contains four smaller drainage areas: Bayou Terrebonne, Bayou Cane, Bayou Black, & Saint Louis Canal. Bayou Black & Saint Louis Canal both drain directly into the Intracoastal Waterway, thus were not included in the survey.

The headwaters of Bayou Terrebonne drain all lands between LA Hwy 20 and Devil's Swamp. South of Devil's Swamp, the drainage area includes some lands within the immediate vicinity of Bayou Terrebonne. The drainage area remains relatively uniform to its intersection with the Intracoastal Waterway at Houma.

The drainage area for Bayou Cane includes all lands located between LA Hwy 311 and Bayou Terrebonne. Bayou Cane's confluence with Bayou Terrebonne is located roughly 4 miles upstream of the subsegment's lowest reach. A pump station exists on Bayou Cane approximately 200 yards upstream of its confluence with Bayou Terrebonne. This pump station only runs when excess water exists on the upstream side of the pump station. Due to malfunctioning sensors at the pump station, it is unknown if the pumps ran, at anytime, during the length of the survey. The pump station has two 48 inch pumps (maximum pumping capacity rated at 50,000 gallons per minute per pump) and two 36 inch pumps (maximum pumping capacity rated at 32,000 gallons per minute per pump) that run an average of 0.84 hours a day (per pump). It is also unknown if one, some, or all of the pumps where operating during the length of the survey.

This subsegment is qualified as being "Not Supporting" water quality criteria on the EPA's 303d list, for both primary & secondary recreation uses and for propagation of fish & wildlife. The suspected causes for these problems are listed as being: pathogens, organic enrichment/low dissolved oxygen, & mercury. The suspected sources for the problems include: municipal point sources, collection system failure (inflow & filtration), urban runoff, storm sewers, natural sources, sediment resuspension, releases from boats, & unknown sources.

In critical/low flow conditions, this subsegment of Bayou Terrebonne is only contiguous from the lowest weir, near site BT-6, to its intersection with the Intracoastal Waterway. In the days before the survey, the Houma-Thibodaux area experienced several summer convection thunderstorms, which produced heavy amounts of rainfall.

The resulting runoff produced by the rains caused water upstream of the weir, at site BT-6, to mix with water downstream of the weir; an event unseen in the months prior to the survey while gathering reconnaissance. The same goes for the weir located near site BT-5, which previously only had a trickle of water going over its weir prior to the rains.

Within subsegment 120301, there are no USGS gauging stations located on Bayou Terrebonne. However, there is one located in the Intracoastal Waterway, located near site ICWW-1; its USGS site identification number is 07381331. Information for this gauging station can be accessed online at <http://www.usgs.gov/>.

The primary land usages of this subsegment are to drain excessive runoff for the residential and commercial sectors and to drain sugar cane fields and other wetlands prone to flooding.

The percentage of tree canopy coverage remained relatively uniform throughout the susubsegment at 25% or less. There were few exceptions where the amount of coverage was between 25 to 75% or where there was none at all.

The amount of floating vegetation was noted as being higher in the upper reaches of the subsegment. Several areas were entirely covered with water hyacinth, duck weed and other aquatic vegetation.

Sedimentation in the water column was most evident in the Intracoastal Waterway. No turbidity was noted in the water column at sites on Bayou Terrebonne and Bayou Cane.

It was noted that two weirs exist along the main stem while gathering reconnaissance on the stream. On the day before the survey, a local business owner informed us to the location of a third weir on Bayou Terrebonne. This became site BT-5A at Coteau Road weir.

All field notes and water quality sheets are included with this report. All cross-sectional area sheets, flow data, water surface elevation data, maps, weather station data, GPS, dye data, continuous monitor data, survey plan and final report are available on the watershed shared network.

Sampling

Water quality samples were taken at all main stem and tributary sites; including chlorophyll a and UBOD. Blank and duplicate water quality samples were taken at sites BT-6 and ICWW-1.

Flow Measurements

Flow measurements were taken at sites BT-12 and ICWW-1 with acoustic Doppler. Flows were estimated with drogues at sites BT-8, BT-9, BT-10, and BT-12. Drogues proved to be unsuccessful at estimating flow at sites: BT-1, BT-2, BT-3, BT-11, and BC-1. Drogue measurements were performed several times at sites BT-9 and BT-12 to observe tidal influences on Bayou Terrebonne. Wading discharge measurements were performed atop the three weirs; sites BT-5, BT-5A, and BT-6. This data should prove valuable since drogues were unable to measure the amount of flow within their respective reaches.

Continuous Monitors

Continuous monitors were placed at sites: BT-1, BT-5, BT-5A, BT-7, & BC-1. The continuous monitor placed at site BT-5A failed to record water quality parameters due to a battery malfunction. On the day before the survey, it was noted that the dissolved oxygen probe's stirrer was not functioning properly on the continuous monitor for site BC-1. An extra continuous monitor, originally designated BT-4, was used to replace the one for BC-1.

Vented depth continuous monitors were placed at sites BT-9, BT-10, BT-12, and ICWW-1 to record the tidal influences on Bayou Terrebonne. The monitors placed at sites BT-9, BT-10 and BT-12 were left to record water quality parameters and tidal fluctuations for several days after the survey.

Benthic

Bayou Terrebonne's stream bottom was noted as being uniform throughout its entire reach. Its bottom is mostly composed of soft silt and organic debris. The same goes for Bayou Cane and the Intracoastal Waterway's benthic characteristics.

Bayou Terrebonne and Bayou Cane are both man-altered (dredged), natural water bodies. The Intracoastal Waterway is entirely man-made.

Dye Study

The dye study began at 0700 hrs at site BT-9B, Highland Drive Bridge, with 300 mL of Rhodamine WT dye being dumped into Bayou Terrebonne. Cross-sections of sites for the dye dump and dye runs were measured.

Cross-sections

Cross-sections were taken at all main stem and tributary sites. Additional cross-sections were taken above the weir at site BT-5A, and on both sides of the intersection of Intracoastal Waterway as it crosses Bayou Terrebonne.

Water Surface Elevation

Water surface elevation data was recorded at all three weirs to note the differences in elevation upstream, atop and downstream of the weirs. Benchmarks were established at each site, allowing elevations collected during the survey to be tied in to USGS geodetic data.

Site Information

Site #: B7-01 Subsegment: 120301 Date: 06/05/03 Time: 0925 hrs
Waterbody: Bayou TERREBONNE Tapedown 1: 5.5 ft Staff Gauge 1:
Gauge Height 1: 5.5 ft Tapedown 2: 5.5 ft Staff Gauge 2:
Gauge Height 2: 5.5 ft
Site Location: @ DUCROQ / DEVIL'S SWAN RD.
Personnel: DARSEY PHILIPPE / SAVANT
Type of Work: Recon Data Collection
Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° <1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° >16
 11-40%
 41-70%
 71-100%
Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Flotsam/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: 09402 Continuous Monitor S/N: 40803
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): 0.15 m
Continuous Monitor Location: ~ 20 ft downstream of culvert
Water Quality Field Parameters:
Time: _____ Temp. (°C): _____ pH: _____ Specific (µmos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____
Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____
Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____
Cross Section Measurement: Measurement Location: ~ 25 ft downstream of wharf
Type of Measurement Manual: Fathometer Cross Section File Name: B701_B1
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: -no flow - water is standable moving water on surface only
~ 2 ft @ culvert
~ 1 ft @ cross section

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: Bridge Height: _____

Profiling Measurements:

Time:	Temp. (C):	pH:	Specific (hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (C):	pH:	Specific (hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (C):	pH:	Specific (hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4a S/N: GPS Unit
AquaCalc S/N: *KIT 3* Fathometer: Laser Gun
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft 0.15 m
1.0 ft 0.30 m
1.5 ft 0.45 m
2.0 ft 0.60 m
2.5 ft 0.75 m

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information

Site #: BT-01 Subsegment 120301 Date: 08/06/03 Time: 1115 hrs
Waterbody: BAYOU TERREBONNE Tapedown 1: 5.5 ft Staff Gauge 1:
Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:
Site Location: @ Devil's Swamp / DUCROS RD -
Personnel: DARSEY / BRIGMAN / PHILLIPS

Type of Work: Recon Data Collection

Weather Conditions:

Clear <input type="checkbox"/>	Hot >85° <input checked="" type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input checked="" type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
0-10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11-40% <input type="checkbox"/>			
41-70% <input type="checkbox"/>			
71-100% <input checked="" type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters
Time: 1115 Temp. (°C): 30.52 pH: 7.24 Spcond(µhos/cm): 447.2 (BATTHO.)
D.O.: 2.53 D.O. %: 33.3 Salinity: 0.22 Depth (m): 0.15 Secchi (in): 12 in (Bottom)

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Droge Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: No Flow

** In Situ Dissolved Oxygen Probe Had Bubble During Post-Calibration **

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: Bridge Height: _____

Profiling Measurements:

Time:	Temp. (C):	pH:	Specific Conductance (µmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (C):	pH:	Specific Conductance (µmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (C):	pH:	Specific Conductance (µmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4a S/N: GPS Unit
AquaCalc S/N: Fathometer: Laser Gun
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft 0.15 m
1.0 ft 0.30 m
1.5 ft 0.45 m
2.0 ft 0.60 m
2.5 ft 0.75 m

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information

Site #: BT-01 Subsegment: 120301 Date: 8/17/03 Time: 1045 hr
Waterbody: Bayou Terrebonne Tatedown 1: 5.72 Staff Gauge 1: _____
Gauge Height 1: _____ Tatedown 2: _____ Staff Gauge 2: _____
Gauge Height 2: _____
Site Location: At Ducros Road / Devil's Swamp Road Bridge
Personnel: Dickinson, Schwartz, Fontenot
Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
Clear Hot > 85° <1 NW N NE
Drizzle/Light Rain Warm > 75° 1-5 SW S SE
Showers Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable
0-10% Cold < 60° >16
11-40%
41-70%
71-100%

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present: Sedimentation/Turbidity Present in Water Column:
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: 40803
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters
Time: _____ Temp. (°C): _____ pH: _____ Second (μhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____
Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____
Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: Continuous Monitor Retrieved at 1045 hr

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge	Bridge Safe:	Bridge Width:	Bridge Height:
Prefilling Measurements:			
Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4a S/N: GPS Unit
AquaCalc S/N: Fathometer: Laser Gun
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft	0.15 m
1.0 ft	0.30 m
1.5 ft	0.45 m
2.0 ft	0.60 m
2.5 ft	0.75 m

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information

Site #: BT-02 Subsegment: 120301 Date: 08/05/03 Time: 1600 hrs.
Waterbody: BAYOU TERREBONNE Tapdown 1: 316 ft Staff Gauge 1: _____
Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
Site Location: @ Price Scrubby Rd - BRIDGE
Personnel: DARSEY / PHILLIPPE / SAVANT

Type of Work: Recon Data Collection

Weather Conditions:

Clear <input checked="" type="checkbox"/>	Temperature (°F):	Wind (mph):	Wind Direction:
Hot > 85° <input type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>	
Drizzle/Light Rain <input type="checkbox"/>	1-5 <input type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>	
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/> 10-15 <input type="checkbox"/> 15-20 <input type="checkbox"/> 20-25 <input type="checkbox"/> 25-30 <input type="checkbox"/> 30-35 <input type="checkbox"/> 35-40 <input type="checkbox"/> 40-45 <input type="checkbox"/> 45-50 <input type="checkbox"/> 50-55 <input type="checkbox"/> 55-60 <input type="checkbox"/> 60-65 <input type="checkbox"/> 65-70 <input type="checkbox"/> 70-75 <input type="checkbox"/> 75-80 <input type="checkbox"/> 80-85 <input type="checkbox"/> 85-90 <input type="checkbox"/> 90-95 <input type="checkbox"/> 95-100 <input type="checkbox"/>	E <input type="checkbox"/> W <input checked="" type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
0-10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11-40% <input type="checkbox"/>			
41-70% <input type="checkbox"/>			
71-100% <input checked="" type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters

Time: _____ Temp. (°C): _____ pH: _____ Spcond(μhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: ~ 30 ft downstream of outlet
Type of Measurement Manual: Fathometer Cross Section File Name: BT-02 D1

GPS Measurement: GPS SSF File Name: _____

Site GPS: Cross Section GPS:
Comments: Shallow with sand

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge	Bridge Safe:	Bridge Width:	Bridge Height:
Profiling Measurements:			
Time:	Temp. (C):	pH:	Spcond(μ mos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond(μ mos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond(μ mos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: _____ Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft	0.15 m
1.0 ft	0.30 m
1.5 ft	0.45 m
2.0 ft	0.60 m
2.5 ft	0.75 m

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information

Site #: 51-02 Subsegment: 170301 Date: 8-6-03 Time: 1055hrs
Waterbody: Bayou Terrebonne Tadedown 1: 3-2 Staff Gauge 1: _____
Gauge Height 1: _____ Tadedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
Site Location: Price School bridge
Personnel: Dansey, Brignac, Phillippe
Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
Clear Hot > 85° <1 NW N NE
Drizzle/Light Rain Warm > 75° 1-5 SW S SE
Showers Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable
0-10% Cold < 60° >16
11-40%
41-70%
71-100%

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters
Time: 1055hrs Temp. (°C): 25.25 pH: 7.17 Spcond (μmos/cm): 37m 429.8
D.O.: 0.24 D.O. %: 2.8 Salinity: 0.22 Depth (m): 0.3m Secchi (in): 0.3m

I_{BV} = 7.5
I_{Batg} = 10.1

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____
Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____
Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: Not flowing

* In Situ's Dissolved Oxygen Probe Had
Bubble During Post-Calibration *

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: _____ Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: _____ Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft 0.15 m
1.0 ft 0.30 m
1.5 ft 0.45 m
2.0 ft 0.60 m
2.5 ft 0.75 m

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information

Site #: BT-03 Subsegment: 120301 Date: 08/05/03 Time: 1455 hrs
Waterbody: Bayou Terrebonne E Tapdown 1: 2.65 ft Staff Gauge 1: _____
Gauge Height 1: _____ Tapdown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
Site Location: RECREATION RD.
Personnel: DARSEY / PHILIPPE / SAVANT
Type of Work: Recon Data Collection
Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear: Hot > 85° <1 NW N NE
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Cloudy Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° >16
 11 - 40%
 41 - 70%
 71 - 100%
Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: < 10% 1-25% 26-50% 51-75% 76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters

Time: _____ Temp. (°C): _____ pH: _____ Spcond(μhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: off bottom of culvert
Type of Measurement Manual: Fathometer Cross Section File Name: BT-03 DS
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: - best accessible & section done
this could reflect which were more representative

Photos Taken: Picture File #: 8093

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____

Continuous Monitor Deployment: _____
Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: Bridge Height: _____

Profiling Measurements:

Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4a S/N: GPS Unit
AquaCalc S/N: Fathometer: Laser Gun
Camera S/N:

References

Convert Feet to Meters

0.5 ft	0.15 m
1.0 ft	0.30 m
1.5 ft	0.45 m
2.0 ft	0.60 m
2.5 ft	0.75 m

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information

Site #: BT-03 Subsegment: Date: 8/16/03 Time: 1030 hrs
Waterbody: Bayou Terrebonne Tapedown 1: 2.7 Staff Gauge 1:
Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:
Site Location:
Personnel:
Type of Work: Recon Data Collection
Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:

Clear <input checked="" type="checkbox"/>	Hot > 85° <input checked="" type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/>	N <input type="checkbox"/>	NE <input type="checkbox"/>
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-3 <input checked="" type="checkbox"/>	SW <input type="checkbox"/>	S <input type="checkbox"/>	SE <input type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/>	W <input checked="" type="checkbox"/>	
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>		Variable <input type="checkbox"/>	
0-10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>			
11-40% <input checked="" type="checkbox"/>					
41-70% <input type="checkbox"/>					
71-100% <input type="checkbox"/>					

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____ FBV = 7.5
Water Quality Field Parameters FBatt = 10.1
Time: 1030 hrs Temp. (°C): 26.53 pH: 7.27 Specific (µmos/cm): 430.8
D.O.: 1.59 D.O. %: 21.8 Salinity: 0.22 Depth (m): 0.3m Secchi (in): 0.6' 24 in.

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____
Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Droge Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____
Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: Not flowing

* In-Situ Dissolved Oxygen Probe Had Bubble During Post-Calibration *

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used: _____

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge	Bridge Safe:	Bridge Width:	Bridge Height:
Profiling Measurements:			
Time:	Temp. (C):	pH:	Specific Gravity (hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Specific Gravity (hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Specific Gravity (hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N:	Surveyor 4a S/N:	GPS Unit
AquaCalc S/N:	Fathometer:	Laser Gun
Camera S/N:		

References

Convert Feet to Meters

0.5 ft	0.15 m
1.0 ft	0.30 m
1.5 ft	0.45 m
2.0 ft	0.60 m
2.5 ft	0.75 m

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information

Site #: BT-04 Subsegment: 120301 Date: 08/05/03 Time: 1415 hrs
Waterbody: BAYOU TERREBONNE Tapetdown 1: 7.39 ft Staff Gauge 1:
Gauge Height 1: Tapetdown 2: Staff Gauge 2: Gauge Height 2:
Site Location: ABOVE WEIR @ N TERREBONNE BRIDGE
Personnel: DARSET / PHILIPPE / SAVENT
Type of Work: Recon Data Collection
Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
Clear Hot > 85° <1 NW N NE
Drizzle/Light Rain Warm > 75° 1-5 SW S SE
Showers Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable Can't tell
0-10% Cold < 60° >16
11 - 40%
41 - 70%
71 - 100%
Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters

Time: Temp. (°C): pH: Seccond (uhmhos/cm):
D.O.: D.O. %: Salinity: Depth (m): Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: ~ 30 yds upstream of weir
Type of Measurement Manual: Fathometer Cross Section File Name: BT-04_B1

GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:

Comments: _____

Photos Taken: Picture File #: HO TO

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: spillway of bridge
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: Bridge Height: _____
Profiling Measurements:

Time:	Temp. (C):	pH:	Specific Conductance (µmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (C):	pH:	Specific Conductance (µmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (C):	pH:	Specific Conductance (µmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4a S/N: GPS Unit
AquaCalc S/N: Fathometer: Laser Gun
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft	0.15 m
1.0 ft	0.30 m
1.5 ft	0.45 m
2.0 ft	0.60 m
2.5 ft	0.75 m

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information

Site #:	<u>BT-64</u>	Subsegment:	<u>8/16/03</u>	Date:	<u>0900 hrs</u>	
Waterbody:	<u>Bayou Terrebonne</u>		Tapedown 1:	<u>7.47</u>	Staff Gauge 1:	
Gauge Height 1:	<u>7.47</u>	Tapedown 2:	<u>7.47</u>	Staff Gauge 2:	Gauge Height 2:	
Site Location:						
Personnel: <u>Darsey, Brignac, Phillippe</u>						
Type of Work: Recon <input type="checkbox"/> Data Collection <input checked="" type="checkbox"/>						
Weather Conditions:		Temperature (°F):	Wind (mph):	Wind Direction:		
Clear <input checked="" type="checkbox"/>		Hot > 85° <input checked="" type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>		
Drizzle/Light Rain <input type="checkbox"/>		Warm > 75° <input type="checkbox"/>	1-5 <input type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>		
Showers <input type="checkbox"/>		Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>		
Cloud Cover:		Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input checked="" type="checkbox"/>		
0-10% <input type="checkbox"/>		Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>			
11-40% <input type="checkbox"/>						
41-70% <input checked="" type="checkbox"/>						
71-100% <input type="checkbox"/>						
Stream Characteristics: Flowing: <input type="checkbox"/> Measurable Flow: <input checked="" type="checkbox"/>						
Flow Direction Upstream <input type="checkbox"/> Downstream <input checked="" type="checkbox"/>		Tidally Influenced: <input type="checkbox"/>				
Wind Influence: <input type="checkbox"/>		Wind Influence Direction: Upstream <input type="checkbox"/> Downstream <input type="checkbox"/>				
Algae Present <input type="checkbox"/>		Sedimentation/Turbidity Present in Water Column <input type="checkbox"/>				
Floating/Aquatic Vegetation % Surface Coverage: <1 <input type="checkbox"/> 1-25% <input type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>						
Water Quality Samples Taken: <input checked="" type="checkbox"/>		Water Quality Field Parameters: <input type="checkbox"/> Profiling: <input type="checkbox"/>				
Continuous Monitor Deployed: <input type="checkbox"/>		Continuous Monitor S/N: _____				
Continuous Monitor Retrieved: <input type="checkbox"/>		Continuous Monitor Deployment Depth (m): _____				
Continuous Monitor Location: _____						
Water Quality Field Parameters						
Time: <u>0900 hrs</u>		Temp. (°C): <u>28.84</u>	pH: <u>7.18</u>	Specific Gravity (dpmhos/cm): <u>381.2</u>	<i>I Batt = 10.2</i>	
D.O.: <u>1.71</u>		D.O. %: <u>22.9</u>	Salinity: <u>0.19</u>	Depth (m): <u>0.75 m</u>		
Secchi (in): <u>30m</u>						
Flow Measurement: <input checked="" type="checkbox"/>		Measurement Location: <u>at weir</u>				
Type of Measurement: Wading <input checked="" type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>						
AquaCalc File Name: <u>BTOS D2</u>						
Flow Estimated: <input checked="" type="checkbox"/>		Measurement Location: _____				
Using Discharge Equipment: <input type="checkbox"/>		Type: Wading <input checked="" type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>				
Drogue Estimate: <input type="checkbox"/>		Dye Estimate: <input type="checkbox"/>				
Right Descending Bank: Distance (ft): _____		Time (s): _____				
Mid Stream: Distance (ft): _____		Time (s): _____				
Left Descending Bank: Distance (ft): _____		Time (s): _____				
Cross Section Measurement: <input type="checkbox"/>		Measurement Location: _____				
Type of Measurement Manual: <input type="checkbox"/> Fathometer <input type="checkbox"/> Cross Section File Name: _____						
GPS Measurement: <input type="checkbox"/>		GPS SSF File Name: _____				
Site GPS: <input type="checkbox"/>		Cross Section GPS: <input type="checkbox"/>				
Comments: _____						
<u>* IN SITES DISSOLVED OXYGEN PROBE HAD BUBBLE DURING POST-CALIBRATION *</u>						

Photo Taken: Picture File #: _____

Tapedown Established: Tapedown Location: on bridge
Benchmark Established: Benchmark Location: on bridge - NE corner (spray paint)
Survey Equipment Used:

Time of Travel Measurement Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:
Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: Bridge Height: _____
Profiling Measurements:
Time: Temp. (C): pH: Spcond(hmos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (C): pH: Spcond(hmos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (C): pH: Spcond(hmos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:
In Situ Probe S/N: Surveyor 4a S/N: GPS Unit
AquaCalc S/N: Fathometer: Laser Gun
Camera S/N: _____

References
Convert Feet to Meters
0.5 ft 0.15 m
1.0 ft 0.30 m
1.5 ft 0.45 m
2.0 ft 0.60 m
2.5 ft 0.75 m

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information

Site #: BT-05 Subsegment: 120301 Date: 03/05/03 Time: 1043
Waterbody: BT TERREBONNE Tapedown 1: 143 ft Staff Gauge 1: _____
Gauge Height 1: _____ Tapedown 2: 73 ft Staff Gauge 2: _____
Gauge Height 2: _____
Site Location: BETWEEN WEIR ON TERREBONNE BRIDGE
Personnel: DARSET / PHILIPPE / SAVANT

Type of Work: Recon Data Collection

Weather Conditions:

Clear <input checked="" type="checkbox"/>	Temperature (°F): Hot > 85° <input checked="" type="checkbox"/>	Wind (mph): <1 <input type="checkbox"/>	Wind Direction: NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input checked="" type="checkbox"/>
0-10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11-40% <input type="checkbox"/>			
41-70% <input checked="" type="checkbox"/>			
71-100% <input type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: S/N: 40806
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): 1 m
Continuous Monitor Location: ~ 20 ft upstream of bridge

Water Quality Field Parameters

Time: _____	Temp. (°C): _____	pH: _____	Specific (μmos/cm): _____	
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____	Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: ~ 30 ft upstream of bridge
Type of Measurement Manual: Pathometer Cross Section File Name: BT-05 DT

GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: water flowing over weir
~ 2 ft deep @ bridge
- rained for ~ 30 minutes tapedown increased ~ .05 ft

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: ~ 50 ft upstream of bridge
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge	Bridge Safe:	Bridge Width:	Bridge Height:
Prefilling Measurements:			
Time:	Temp. (C):	pH:	Specific Conductance (mhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Specific Conductance (mhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Specific Conductance (mhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4a S/N: GPS Unit
AquaCalc S/N: Fathometer: Laser Gun
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft	0.15 m
1.0 ft	0.30 m
1.5 ft	0.45 m
2.0 ft	0.60 m
2.5 ft	0.75 m

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information

Site #: BT-05 Subsegment: Re301 Date: 05/05/03 Time: 0900 0915 hrs
Waterbody: Bayou Terrebonne Tatedown 1: 7.47 Staff Gauge 1:
Gauge Height 1: 7.47 Tatedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
Site Location: _____
Personnel: Philip Brigitte, Parsay
Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
Clear Hot > 85° <1 NW N NE
Drizzle/Light Rain Warm > 75° 1-5 SW S SE
Showers Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable
0-10% Cold < 60° >16
11-40%
41-70%
71-100%

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% >75%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters
Time: 0915 Temp. (°C): 28.74 PH: 7.17 Specific (µmos/cm): 384.6
D.O.: 1.57 D.O. %: 20.0 Salinity: 0.19 Depth (m): 1 m Secchi (in): 42 in

Flow Measurement: Measurement Location: @ weir
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: BT05.D1
Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____
Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSP File Name: _____
Site GPS: Cross Section GPS:
Comments: (Handwritten notes at bottom)
Beach MRK - 1.05 ft + 100 ft = H.I.S 101.05 ft
Weir - 5.87 ft
Water Above Weir - 5.87 ft
Water Below Weir - 5.43 ft

* IN SITU Dissolved Oxygen PROBE (H2) During Deployment *

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____ W&W
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:
Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: Bridge Height:
Profiling Measurements:
Time: Temp. (C): pH: Spcond(μ mos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (C): pH: Spcond(μ mos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (C): pH: Spcond(μ mos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:
In Situ Probe S/N: Surveyor 4a S/N: GPS Unit
AquaCalc S/N: Fathometer: Laser Gun
Camera S/N: _____

References
Convert Feet to Meters
0.5 ft 0.15 m
1.0 ft 0.30 m
1.5 ft 0.45 m
2.0 ft 0.60 m
2.5 ft 0.75 m

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information

Site #: BT-05 Subsegment: 120301 Date: 3/17/03 Time: 1100 hr
Waterbody: Bayou Terrebonne Tapedown 1: TSD Staff Gauge 1: _____
Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____
Gauge Height 2: _____
Site Location: Downstream of Weir at North Terrebonne Road Bridge
Personnel: Dinkinson, Schwartz, Finternot
Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
Clear Hot > 85° <1 NW N NE
Drizzle/Light Rain Warm > 75° 1-5 SW S SE
Showers Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable
0-10% Cold < 60° >16
11-40%
41-70%
71-100%

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor SN: 40806 at 1100hr
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters
Time: _____ Temp. (°C): _____ pH: _____ Spcond (μmos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____
Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____
Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: Continuous Monitor Retrieved at 1100hr

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge	Bridge Safe:	Bridge Width:	Bridge Height:
Profiling Measurements:			
Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4a S/N: GPS Unit
AquaCalc S/N: Fathometer: Laser Gun
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft	0.15 m
1.0 ft	0.30 m
1.5 ft	0.45 m
2.0 ft	0.60 m
2.5 ft	0.75 m

Site Information

Sit #: BT-05a Subsegment 120301 Date: 8/5/03 Time: 1610
Waterbody: Bayou Terrebonne Tapetown 1: Staff Gauge 1:
Gauge Height 1: Tapetown 2: Staff Gauge 2:
Gauge Height 2:
Site Location: *Coteau 200 yds downstream of Coteau Rd bldg.*
Personnel: DICKINSON, CAL Fontenot, Schwartz
Type of Work: Recon Data Collection

Weather Conditions:

Clear <input checked="" type="checkbox"/>	Temperature (°F):	Wind (mph):	Wind Direction:
Drizzle/Light Rain <input type="checkbox"/>	Hot > 85° <input type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>
Showers <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input checked="" type="checkbox"/>
Cloud Cover:	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>
0-10% <input type="checkbox"/>	Cool > 50° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
11-40% <input type="checkbox"/>	Cold < 50° <input type="checkbox"/>	>16 <input type="checkbox"/>	
41-70% <input checked="" type="checkbox"/>			
71-100% <input type="checkbox"/>			

Stream Characteristics: Flowing Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aromatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: 39002
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): 2 ft
Continuous Monitor Location: *100 yds downstream of Coteau Rd*

Water Quality Field Parameters

Time:	Temp. (°C):	pH:	Specific (µmos/cm):	
D.O.:	B.O. %:	Salinity:	Depth (m):	Secchi (in):

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement: Manual Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: *Continuous Monitor deployed*

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: 100 yd down stream of bridge
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Reton Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time:	Temp. (°C):	pH:	Specific(umhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Specific(umhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Specific(umhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 408 Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Field Site Survey.doc
Revision 2.0

Site Information							
Site #:	BT-05A	Subsegment:	120301	Date:	8.6.03		
Waterbody:	Bayou Terrebonne	Tapedown 1:	7.54	Time:	1300		
Gauge Height 1:		Tapedown 2:		Staff Gauge 1:			
Site Location:	100 yds downstream of Coteau Rd.						
Personnel:	Dickinson, Brignac, Schwartz, Fontenot						
Type of Work:	Recon	Data Collection	<input checked="" type="checkbox"/>				
Weather Conditions:							
Clear	Temperature (°F):	Hot > 85°	Wind (mph):	<1	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>		
Drizzle/Light Rain		Warm > 75°		1-5	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>		
Showers		Mild > 65°		6-10	E <input type="checkbox"/> W <input type="checkbox"/>		
Cloud Cover:		Cool > 50°		11-15	Variable <input type="checkbox"/>		
0-10%		Cold < 50°		>16			
11-40%							
41-70%							
71-100%							
Stream Characteristics:	Flowing:	<input type="checkbox"/>	Measurable Flow:	<input type="checkbox"/>			
Flow Direction Upstream	<input type="checkbox"/>	Downstream	<input type="checkbox"/>	Tidally Influenced	<input type="checkbox"/>		
Wind Influence:	<input type="checkbox"/>	Wind Influence Direction:	Upstream	<input type="checkbox"/>	Downstream	<input type="checkbox"/>	
Algae Present	<input type="checkbox"/>	Sedimentation/Turbidity Present in Water Column				<input type="checkbox"/>	
Floating/Aquatic Vegetation % Surface Coverage:	<1	1-25%	26-50%	51-75%	76-100%		
Water Quality Samples Taken:	<input type="checkbox"/>	Water Quality Field Parameters:	<input type="checkbox"/>	Profiling:	<input type="checkbox"/>		
Continuous Monitor Deployed:	<input type="checkbox"/>	Continuous Monitor S/N:					
Continuous Monitor Retrieved:	<input type="checkbox"/>	Continuous Monitor Deployment Depth (m):					
Continuous Monitor Location:							
Water Quality Field Parameters							
Time:	1300	Temp (°C):	29.40	pH:	7.11		
D.O.:	3.25	D.O. %:	42.5	Specific(umhos/cm):	390.2		
		Salinity:	0.19	Depth (m):	0.45		
				Secchi (in):	30		
Flow Measurement:	<input type="checkbox"/>	Measurement Location:					
Type of Measurement:	Wading	<input type="checkbox"/>	Bridge Board	<input type="checkbox"/>	Boat Board	<input type="checkbox"/>	
AquaCalc File Name:							
Flow Estimated:	<input type="checkbox"/>	Measurement Location:					
Using Discharge Equipment:	<input type="checkbox"/>	Type:	Wading	Bridge Board	Boat Board	<input type="checkbox"/>	
Drogue Estimate:	<input type="checkbox"/>	Dye Estimate:	<input type="checkbox"/>				
Right Descending Bank Distance (ft):			Time (s):				
Mid Stream:	Distance (ft):		Time (s):				
Left Descending Bank Distance (ft):			Time (s):				
Cross Section Measurement:	<input type="checkbox"/>	Measurement Location:					
Type of Measurement Manual:	<input type="checkbox"/>	Fathometer	<input type="checkbox"/>	Cross Section File Name:			
GPS Measurement:	<input type="checkbox"/>	GPS SSF File Name:					
Site GPS:	<input type="checkbox"/>	Cross Section GPS:					<input type="checkbox"/>
Comments:	Water Quality Samples Taken 2.5 m water quality samples were taken Elevation? Bridge: 100 ft HT = 3.68 ft + 100 = 103.68 Above Weir: 11.01 Weir: 11.19 Below Weir: 12.06						

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: 100 yds downstream of bridge
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time:	Temp. (°C):	pH:	Specific (μmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Specific (μmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Specific (μmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 40807 Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Site Information

Site #: BT-054 Subsegment: 120301 Date: 8/18/03 Time: 0935 hrs
Waterbody: Bayou Terrebonne Tapedown 1: 745 Staff Gauge 1:
Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
Site Location: 100 yds downstream of Coteau Rd below weir
Personnel: Schwartz, Cal Fontenot, Tones
Type of Work: Recon Data Collection

Weather Conditions:

Clear <input checked="" type="checkbox"/>	Temperature (°F): Hot > 85° <input type="checkbox"/>	Wind (mph): <1 <input checked="" type="checkbox"/>	Wind Direction: NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
0-10% <input checked="" type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11-40% <input type="checkbox"/>			
41-70% <input type="checkbox"/>			
71-100% <input type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 25-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: 39003
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): 2 ft
Continuous Monitor Location: 100 yds downstream of Coteau Rd below weir

Water Quality Field Parameters

Time: _____ Temp. (°C): _____ pH: _____ Specific (µmos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Pathometer Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:

Comments: _____

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: *100 yds downstream of bridge*
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge	Bridge Safe:	Bridge Width:	Bridge Height:
Profiling Measurements:			
Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N:	Surveyor 4s S/N:	GPS Unit
AquaCalc S/N:	Fathometer:	Laser Gun
Camera S/N:		

References

Convert Feet to Meters:

0.5 ft	0.15 m
1.0 ft	0.30 m
1.5 ft	0.45 m
2.0 ft	0.60 m
2.5 ft	0.75 m

Site Information

Site #: BT-06 Subsegment 120301 Date: 8/15/03 Time: 0930
Waterbody: Bayou Terrebonne Tapedown 1: 6-66 Staff Gauge 1:
Gauge Height 1: _____
Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
Site Location: Upstream of weir at Mall Road Bridge
Personnel: Pickering, Schwartz, Cal Fontenot
Type of Work: Recon Data Collection
Weather Conditions:

Clear <input checked="" type="checkbox"/>	Temperature (°F):	Wind (mph):	Wind Direction:
Hot > 85° <input checked="" type="checkbox"/>	<1	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>	
Drizzle/Light Rain <input type="checkbox"/>	1-5	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input checked="" type="checkbox"/>	
Showers <input type="checkbox"/>	6-10	E <input type="checkbox"/> W <input type="checkbox"/>	
Mild > 65° <input type="checkbox"/>	11-15	Variable <input type="checkbox"/>	
Cool > 60° <input type="checkbox"/>	>16		
Cold < 50° <input type="checkbox"/>			
Cloud Cover:			
0-10% <input type="checkbox"/>			
11-40% <input type="checkbox"/>			
41-70% <input checked="" type="checkbox"/>			
71-100% <input type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream: Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream: Downstream:
Algae Present: Sedimentation/Turbidity Present in Water Column:
Floating/Aquatic Vegetation: % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters

Time: Temp (°C): pH: Specific (µmos/cm): Depth (m): Secchi (in):
D.O.: D.O. %: Salinity: _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: 60 ft downstream of bridge
Type of Measurement Manual: Fathometer Cross Section File Name: BT-06-X.S
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: X-section

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used: _____

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (mL): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: *Soft downstream of bridge*
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time:	Temp. (°C):	pH:	Spcond (µmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Spcond (µmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Spcond (µmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: _____ Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Site Information					
Site #:	BT-06	Subsegment:	120301	Date:	8/6/03
Watersbody:	Bayou Terrebonne		Tape down 1:	6.72	Time: 0730
Gauge Height 1:		Tape down 2:	Staff Gauge 1:		
Gauge Height 2:		Staff Gauge 2:	Gauge Height 2:		
Site Location: Upstream of Weir at Mail Road Bridge					
Personnel: Dickinson, Schwartz, Fontenot (Co)					
Type of Work:	Recon <input type="checkbox"/> Data Collection <input checked="" type="checkbox"/>				
Weather Conditions:					
Clear <input checked="" type="checkbox"/>	Temperature (°F):	Hot > 85° <input checked="" type="checkbox"/>	Wind (mph):	Wind Direction:	
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>		
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>		
Cloud Cover:	Cool > 50° <input type="checkbox"/>	11-15 <input type="checkbox"/>	B <input type="checkbox"/> W <input type="checkbox"/>		
0-10% <input type="checkbox"/>	Cold < 50° <input type="checkbox"/>	>15 <input type="checkbox"/>	Variable <input type="checkbox"/>		
11-40% <input type="checkbox"/>					
41-70% <input type="checkbox"/>					
71-100% <input checked="" type="checkbox"/>					
Stream Characteristics: Flowing: <input type="checkbox"/> Measurable Flow: <input type="checkbox"/>					
Flow Direction Upstream <input type="checkbox"/>	Downstream <input type="checkbox"/>	Tidally Influenced: <input type="checkbox"/>			
Wind Influence: <input type="checkbox"/>	Wind Influence Direction: Upstream <input type="checkbox"/> Downstream <input type="checkbox"/>				
Algae Present <input type="checkbox"/>	Sedimentation/Turbidity Present in Water Column: <input type="checkbox"/>				
Emerging/Aquatic Vegetation % Surface Coverage: < 1 <input type="checkbox"/> 1-25% <input checked="" type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>					
Water Quality Samples Taken: <input checked="" type="checkbox"/>	Water Quality Field Parameters: <input type="checkbox"/>		Profiling: <input type="checkbox"/>		
Continuous Monitor Deployed: <input type="checkbox"/>	Continuous Monitor S/N: _____				
Continuous Monitor Retrieved: <input type="checkbox"/>	Continuous Monitor Deployment Depth (m): _____				
Continuous Monitor Location: _____					
Water Quality Field Parameters					
Time: 0730	Temp. (°C): 28.90	pH: 7.17	Specific(photos/cm): 359.6	IBV-7.5 IBa - 10.8	
P.O.: D.77	D.O. %: 99	Salinity: 0.1P	Depth (m): 0.75	Secchi (in): 30	
Flow Measurement: <input checked="" type="checkbox"/>	Measurement Location: _____				
Type of Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>					
AquaCalc File Name: BT-06					
Flow Estimated: <input type="checkbox"/>	Measurement Location: _____				
Using Discharge Equipment: <input type="checkbox"/>	Type: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>				
Drogue Estimate: <input type="checkbox"/> Dye Estimate: <input type="checkbox"/>					
Right Descending Bank Distance (ft): _____	Time (s): _____				
Mid Stream: Distance (ft): _____	Time (s): _____				
Left Descending Bank Distance (ft): _____	Time (s): _____				
Cross Section Measurement: <input type="checkbox"/>	Measurement Location: _____				
Type of Measurement Manual: <input type="checkbox"/> Fathometer <input type="checkbox"/> Cross Section File Name: _____					
GPS Measurement: <input type="checkbox"/>	GPS SSF File Name: _____				
Site GPS: <input type="checkbox"/> Cross Section GPS: <input type="checkbox"/>					
Comments: Water Quality Sampler Taken					
Elevation: TB. 100' @ Bridge					
HT: 4.52 ft + 100' → 104.52 ft					
Above weir: 10.94 ft					
Weir: 11.16 ft					
Below weir: 12.17					
- Water flowing over right side weir was approximately 10% of flow					

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used: _____

Time of Travel Measurement: _____ Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: 50ft. Downstream of bridge
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurements: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time:	Temp. (°C):	pH:	Specific(umhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Specific(umhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Specific(umhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 40807 Surveyor 4a S/N: 38005012013 GPS Unit
AquaCalc S/N: Refractometer Laser Gun
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

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Site Information

Site #: BT-07 Subsegment: 120301 Date: 3/5/03 Time: 0930
Waterbody: Bayou Terrebonne Tapedown 1: _____ Staff Gauge 1: _____
Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____
Gauge Height 2: _____
Site Location: Downstream of Weir at Mall Road Bridge
Personnel: Dickinson, Schwartz, Cal Fontenot
Type of Work: Recon Data Collection
Weather Conditions:
Clear Hot > 85° Wind (mph): <1 Wind Direction: NW N NE
Drizzle/Light Rain Warm > 75° 1-5 SW S SE
Showers Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable
0-10% Cold < 60° >16
11-40%
41-70%
71-100%
Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column:
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor SN: 40006 at 0955
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): 0.60
Continuous Monitor Location: 30 ft downstream
Water Quality Field Parameters
Time: _____ Temp (°C): _____ pH: _____ Scond (umes/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____
Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____
Flow Estimated: Measurement Location: _____
Using Discharge Equipment Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank Distance (ft): _____ Time (s): _____
Cross Section Measurement: Measurement Location: 60 ft downstream
Type of Measurement Manual: Fathometer Cross Section File Name: BT-07-03
GPS Measurement: GPS SSF File Name: BTerre
Site GPS: Cross Section GPS:
Comments: Continuous Monitor Deployed and X-section site
Cleared dam of trash, debris, & organic materials in order to take flow. At 1030 dam was cleared

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used: _____

Time of Travel Measurement: _____ Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: 35ft upstream
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge: Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time:	Temp. (°C):	pH:	Spcond (µmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Spcond (µmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Spcond (µmhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: _____ Surveyor 4a S/N: _____ GPS Unit: B
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Field Site Survey doc

Site Information

Site #: BT-07 Subsegment: 120301 Date: 8/6/03 Time: 0915
Waterbody: Bayou Terrebonne Tapedown 1: _____ Staff Gauge 1: _____
Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____
Gauge Height 2: _____
Site Location: Downstream of weir at Main Road Bridge
Personnel: Dickinson, Schwartz, Cal Fontenot
Type of Work: Recon Data Collection

Weather Conditions:

Clear <input checked="" type="checkbox"/>	Temperature (°F):	Wind (mph):	Wind Direction:
Drizzle/Light Rain <input type="checkbox"/>	Hot >85° <input checked="" type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input checked="" type="checkbox"/> NE <input type="checkbox"/>
Showers <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>
Cloud Cover:	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>
0-10% <input type="checkbox"/>	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input checked="" type="checkbox"/>
11-40% <input checked="" type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>	
41-70% <input type="checkbox"/>			
71-100% <input type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 25-50% 51-75% 75-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters
Time: 0915 Temp. (°C): 29.20 pH: 7.02 Specific(umhos/cm): 361.5 IGV-7.4 IBa-108
D.O.: 0.95 D.O. %: 12.2 Salinity: 0.18 Depth (m): 1.43 Secchi (m): 30

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Pedometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: Water Quality Samples Taken
Sonic discharge is discharging

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (mL): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: 30 ft downstream
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment:
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: Temp. (°C): pH: Specific(μhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Specific(μhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Specific(μhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: 40807 Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

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Site Information

Site #: BT-071 Subsegment: 120301 Date: 8/11/03 Time: 0955 hr
Waterbody: Bayou Terrebonne Tatedown 14.75 Staff Gauge 1:
Gauge Height 1: Tatedown 2: Staff Gauge 2: Gauge Height 2:
Site Location: downstream of Weir at Mall Road Bridge
Personnel: Dickinson, Fontenot, Seward
Type of Work: Recon Data Collection

Weather Conditions:

Clear <input checked="" type="checkbox"/>	Temperature (°F): Hot > 85° <input checked="" type="checkbox"/>	Wind (mph): <1 <input type="checkbox"/>	Wind Direction: NW <input checked="" type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
0-10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11-40% <input checked="" type="checkbox"/>			
41-70% <input type="checkbox"/>			
71-100% <input type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Flotsam/Aromatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: 40002 40006
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters

Time: _____	Temp (°C): _____	pH: _____	Specific(µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
			Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: Continuous Monitor Retrieved

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____

Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: 30 FT DOWNSTREAM
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time:	Temp. (°C):	pH:	Specific (µhos/cm):	Depth (m):
D.O.:	D.O. %:	Salinity:		

Time:	Temp. (°C):	pH:	Specific (µhos/cm):	Depth (m):
D.O.:	D.O. %:	Salinity:		

Time:	Temp. (°C):	pH:	Specific (µhos/cm):	Depth (m):
D.O.:	D.O. %:	Salinity:		

Equipment Used:

In Situ Probe S/N:	Surveyor 4a S/N:	GPS Unit
AquaCalc S/N:	Fathometer:	Laser Gun
Camera S/N:		

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Site Information

Site #: BT-08 Subsegment: 120.361 Date: 8/15/03 Time: 1119
 Waterbody: Bayou Terrebonne Tagedown 1: 145 Staff Gauge 1:
 Gauge Height 1: 1.45 Tagedown 2: 145 Staff Gauge 2: 1.45 Gauge Height 2:
 Site Location: At Funderhurk Road Bridge
 Personnel: DICKINSON, Schwartz, Cal Fontenot
 Type of Work: Recon Data Collection

Weather Conditions:

Clear <input type="checkbox"/>	Temperature (°F):	Wind (mph):	Wind Direction:
Drizzle/Light Rain <input checked="" type="checkbox"/>	Hot > 85° <input type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>
Showers <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>
Cloud Cover:	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>
0-10% <input type="checkbox"/>	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
11-40% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>	
41-70% <input type="checkbox"/>			
71-100% <input checked="" type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present: Sedimentation/Turbidity Present in Water Column:
 Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: **Water Quality Field Parameters:** **Profiling:**
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: _____	Temp. (°C): _____	pH: _____	Specific (uhmos/cm): _____
D.O.: _____	B.O. %: _____	Salinity: _____	Depth (m): _____
			Secchi (in): _____

Flow Measurement: **Measurement Location:** _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: **Measurement Location:** _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): _____ Time (s): _____
 Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: **Measurement Location:** 50 ft upstream of bridge
 Type of Measurement Manual: Fathometer Cross Section File Name: BT-08.xls
GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:
 Comments: X-Section

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (mL): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: Temp. (°C): pH: Specific (µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Specific (µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Specific (µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4a S/N: GPS Unit: _____
AquaCalc S/N: Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

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Revision 2.0

Site Information					
Site #:	BT-08	Subsegment:	120301	Date:	8/6/03
Waterbody:	Bayou Terrebonne	Tape down 1:	745	Time:	1030
Gauge Height 1:		Staff Gauge 1:		Gauge Height 2:	
Site Location:	At Funderdunk Road Bridge				
Personnel:	DICKINSON, Fontenot, Schwartz				
Type of Work:	Recon <input type="checkbox"/> Data Collection <input checked="" type="checkbox"/>				
Weather Conditions:					
Clear <input checked="" type="checkbox"/>	Temperature (°F):	Hot >85° <input checked="" type="checkbox"/>	Wind (mph):	<1 <input type="checkbox"/>	Wind Direction:
Drizzle/Light Rain <input type="checkbox"/>	Warm >75° <input type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>	
Showers <input type="checkbox"/>	Mild >65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>	Variable <input checked="" type="checkbox"/>	
Cloud Cover:	Cool <60° <input type="checkbox"/>	11-15 <input type="checkbox"/>			
0-10% <input type="checkbox"/>	Cold <50° <input type="checkbox"/>	>16 <input type="checkbox"/>			
11-40% <input type="checkbox"/>					
41-70% <input checked="" type="checkbox"/>					
71-100% <input type="checkbox"/>					
Stream Characteristics:	Flowing: <input checked="" type="checkbox"/>	Measurable Flow: <input type="checkbox"/>			
Flow Direction Upstream <input type="checkbox"/>	Downstream <input checked="" type="checkbox"/>	Tidally Influenced: <input type="checkbox"/>			
Wind Influence: <input type="checkbox"/>		Wind Influence Direction: Upstream <input type="checkbox"/> Downstream <input type="checkbox"/>			
Algae Present <input type="checkbox"/>	Sedimentation/Turbidity Present in Water Column <input type="checkbox"/>				
Floating/Aquatic Vegetation % Surface Coverage:	<1 <input checked="" type="checkbox"/> 1-25% <input type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>				
Water Quality Samples Taken: <input checked="" type="checkbox"/>	Water Quality Field Parameters: <input type="checkbox"/>	Profiling: <input type="checkbox"/>			
Continuous Monitor Deployed: <input type="checkbox"/>	Continuous Monitor S/N: _____				
Continuous Monitor Retrieved: <input type="checkbox"/>	Continuous Monitor Deployment Depth (m): _____				
Continuous Monitor Location: _____					
Water Quality Field Parameters					
Time: 1030	Temp. (°C): 29.69	pH: 7.00	Specific (µmos/cm): 338.2	IBV- 7.5 I Bar 10:8	
D.O.: 4.42	4.40 D.O. %: 58.2	Salinity: 0.17	Depth (m): 1.0	Secchi (m): 36	
Flow Measurement: <input checked="" type="checkbox"/>	Measurement Location: _____				
Type of Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>					
AquaCalc File Name: _____					
Flow Estimated: <input checked="" type="checkbox"/>	Measurement Location: _____				
Using Discharge Equipment <input type="checkbox"/>	Type: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>				
Drogs Estimate: <input checked="" type="checkbox"/>	Dye Estimate: <input type="checkbox"/>				
Right Descending Bank Distance (ft): _____	Time (s): _____				
Mid Stream: Distance (ft): 187	Time (s): 5 min	Downstream			
Left Descending Bank Distance (ft): _____	Time (s): _____				
Cross Section Measurement: <input type="checkbox"/>	Measurement Location: _____				
Type of Measurement Manual: <input type="checkbox"/> Fathometer <input type="checkbox"/> Cross Section File Name: _____					
GPS Measurement: <input type="checkbox"/>	GPS SSF File Name: _____				
Site GPS: <input type="checkbox"/>	Cross Section GPS: <input type="checkbox"/>				
Comments: Water Quality Samples Taken					
70 ft DW					

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used: _____

Time of Travel Measurement Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: 40807 Surveyor 4a S/N: _____ GPS Unit _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

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Revision 2.0

Site Information					
Site #:	BT-09	Subsegment:	120301	Date:	8.15.03
Waterbody:	Bayou Terrebonne		Tapedown 1:	6.37	6.9
Gauge Height 1:	Tapedown 2:	Staff Gauge 1:	Tapedown 2:	Staff Gauge 1:	Gauge Height 2:
Site Location:	At Westside Street Bridge				
Personnel:	Dickinson, Schwartz, Cal Fontenot				
Type of Work:	Recon <input type="checkbox"/> Data Collection <input checked="" type="checkbox"/>				
Weather Conditions:					
Clear <input checked="" type="checkbox"/>	Temperature (°F):	Wind (mph):	Wind Direction:		
Drizzle/Light Rain <input type="checkbox"/>	Hot > 85° <input checked="" type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/>	N <input type="checkbox"/>	NNE <input type="checkbox"/>
Showers <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input type="checkbox"/>	S <input type="checkbox"/>	SE <input checked="" type="checkbox"/>
Cloud Cover:	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/>	W <input type="checkbox"/>	
0-10% <input type="checkbox"/>	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>		
11-40% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>			
41-70% <input type="checkbox"/>					
71-100% <input checked="" type="checkbox"/>					
Stream Characteristics: Flowing: <input checked="" type="checkbox"/> Measurable Flow: <input type="checkbox"/>					
Flow Direction Upstream <input type="checkbox"/>	Downstream <input checked="" type="checkbox"/>	Tidally Influenced: <input type="checkbox"/>			
Wind Influence: <input type="checkbox"/>	Wind Influence Direction: Upstream <input type="checkbox"/> Downstream <input type="checkbox"/>				
Algae Present <input type="checkbox"/>	Sedimentation/Turbidity Present in Water Column <input type="checkbox"/>				
Floating/Aquatic Vegetation % Surface Coverage: <1 <input type="checkbox"/> 1-25% <input checked="" type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>					
Water Quality Samples Taken: <input type="checkbox"/>	Water Quality Field Parameters: <input type="checkbox"/>	Profiling: <input type="checkbox"/>			
Continuous Monitor Deployed: <input checked="" type="checkbox"/>	Continuous Monitor SN: 7005 at 1142				
Continuous Monitor Retrieved: <input type="checkbox"/>	Continuous Monitor Deployment Depth (m): 5.60				
Continuous Monitor Location: Off Westside bridge	Downstream side of bridge				
Water Quality Field Parameters					
Time:	Temp. (°C):	pH:	Spcond (µmhos/cm):		
D.O.:	D.O. %:	Salinity:	Depth (m):	Secchi (in):	
Flow Measurement: <input type="checkbox"/> Measurement Location: _____					
Type of Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>					
AquaCalc File Name: _____					
Flow Estimated: <input type="checkbox"/> Measurement Location: _____					
Using Discharge Equipment: <input type="checkbox"/> Type: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>					
Drogue Estimate: <input type="checkbox"/> Dye Estimate: <input type="checkbox"/>					
Right Descending Bank Distance (ft):	Time (s): _____				
Mid Stream: Distance (ft): 94.0	Time (s): 221 - 1415 Downstream at 1815hr				
Left Descending Bank Distance (ft):	Time (s): _____				
Cross Section Measurement: <input type="checkbox"/> Measurement Location: Off Westside street bridge					
Type of Measurement Manual: <input checked="" type="checkbox"/> Pathometer <input type="checkbox"/> Cross Section File Name: BT-09 X5					
GPS Measurement: <input type="checkbox"/> GPS SSF File Name: _____					
Site GPS: <input type="checkbox"/> Cross Section GPS: <input type="checkbox"/>					
Comments: Continuous Monitor Deployed & X-section Evening drogue					

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurements: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: Temp. (°C): pH: Specific (µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Specific (µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Specific (µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: _____ Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Field Site Survey.doc
Revision 2.0

Site Information

Site #: BT-09 Subsegment 120301 Date: 8/6/03 Time: 1130
Waterbody: Bayou Terrebonne Tatedown 1: 7:00 Staff Gauge 1:
Gauge Height 1: Tatedown 2: Staff Gauge 2: Gauge Height 2:
Site Location: At Westside Street Bridge
Personnel: Dickerson, Fontenot, Schwartz
Type of Work: Recon Data Collection
Weather Conditions:

Clear <input checked="" type="checkbox"/>	Temperature (°F):	Wind (mph):	Wind Direction:
Hot > 85° <input checked="" type="checkbox"/>	<1	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>	
Drizzle/Light Rain <input type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>	
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input checked="" type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
0-10% <input type="checkbox"/>	Cold < 50° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11-40% <input type="checkbox"/>			
41-70% <input type="checkbox"/>			
71-100% <input checked="" type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: < 1 1-24% 25-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor SN: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 1130 Temp. (*C): 29.59 pH: 6.90 Specific (uhmos/cm): 288.7
D.O.: 1.18 D.O. %: 11.3 Salinity: 0.14 Depth (m): 0.40 Secchi (in): 30 IBV-7.3 IBa - 10.8

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): 204 Time (s): 5 min Downstream
Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comment: Water Quality Sample Taken

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____

Survey Equipment Used: _____

Time of Travel Measurement: _____ Type of Site: Injection Collection

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent: Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: 40801 Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Barometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Site Information					
Site #: <u>BT-09</u>	Subsegment <u>120301</u>	Date: <u>8/6/03</u>	Time: <u>1800 hrs</u>		
Waterbody: <u>Bayou Terrebonne</u>	Taperdown 1: <u>7.11</u>	Staff Gauge 1:	Gauge Height 1:		
Gauge Height 2:	Taperdown 2:	Staff Gauge 2:	Gauge Height 2:		
Site Location: <u>Westside Bridge</u>					
Personnel:					
Type of Work: Recon <input type="checkbox"/> Data Collection <input checked="" type="checkbox"/>					
Weather Conditions:					
Clear <input checked="" type="checkbox"/>	Temperature (°F): Hot > 85° <input checked="" type="checkbox"/>	Wind (mph): <1 <input type="checkbox"/>	Wind Direction: NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>		
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>		
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input checked="" type="checkbox"/>	B <input type="checkbox"/> W <input checked="" type="checkbox"/>		
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>		
0-10% <input checked="" type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>			
11-40% <input type="checkbox"/>					
41-70% <input type="checkbox"/>					
71-100% <input type="checkbox"/>					
Stream Characteristics: Flowing: <input checked="" type="checkbox"/>	Measurable Flow: <input type="checkbox"/>				
Flow Direction Upstream <input type="checkbox"/>	Downstream <input checked="" type="checkbox"/>	Tidally Influenced: <input type="checkbox"/>			
Wind Influence: <input type="checkbox"/>	Wind Influence Direction: Upstream <input type="checkbox"/> Downstream <input checked="" type="checkbox"/>				
Algae Present <input checked="" type="checkbox"/>	Sedimentation/Turbidity Present in Water Column: <input type="checkbox"/>				
Floating/Aquatic Vegetation % Surface Coverage: <1 <input checked="" type="checkbox"/>	1-25% <input type="checkbox"/>	26-50% <input type="checkbox"/>	51-75% <input type="checkbox"/>	76-100% <input type="checkbox"/>	
Water Quality Samples Taken: <input type="checkbox"/>	Water Quality Field Parameters: <input type="checkbox"/>	Profiling: <input type="checkbox"/>			
Continuous Monitor Deployed: <input type="checkbox"/>	Continuous Monitor SN: _____				
Continuous Monitor Retrieved: <input type="checkbox"/>	Continuous Monitor Deployment Depth (m): _____				
Continuous Monitor Location: _____					
Water Quality Field Parameters					
Time: _____	Temp (°C): _____	pH: _____	Specific (µmos/cm): _____		
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____	Secchi (in): _____	
Flow Measurement: <input type="checkbox"/>	Measurement Location: _____				
Type of Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>					
AquaCalc File Name: _____					
Flow Estimated: <input checked="" type="checkbox"/>	Measurement Location: _____				
Using Discharge Equipment: <input type="checkbox"/>	Type: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>				
Drogue Estimate: <input type="checkbox"/> Dye Estimate: <input type="checkbox"/>					
Right Descending Bank Distance (ft): _____	Time (s): _____				
Mid Stream: Distance (ft): <u>26 ft</u>	Time (s): <u>5 min</u>				
Left Descending Bank Distance (ft): _____	Time (s): _____				
Cross Section Measurement: <input type="checkbox"/>	Measurement Location: _____				
Type of Measurement Manual: <input type="checkbox"/> Fathometer <input type="checkbox"/> Cross Section File Name: _____					
GPS Measurement: <input type="checkbox"/>	GPS SSF File Name: _____				
Site GPS: <input type="checkbox"/>	Cross Section GPS: <input type="checkbox"/>				
Comments: <u>Drogue in the Evening</u>					

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used: _____

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4a S/N: GPS Unit
AquaCalc S/N: Fathometer: Laser Gun
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

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Revision 1.0

Site Information

Site #: B709 Subsegment: _____ Date: 8/11/03 Time: 11:50
Waterbody: Bayou Terrebonne a Tapedown 1: 7.0 Staff Gauge 1: _____
Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
Site Location: Bayou Terrebonne at Westside St Bridge
Personnel: Hughes, Cal Fontenot
Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
Clear Hot >85° <1 NW N NE
Drizzle/Light Rain Warm > 75° 1-5 SW S SE
Showers Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable
0 - 10% Cold < 60° >16
11 - 40%
41 - 70%
71 - 100%

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: 40005
Continuous Monitor Retrieved: 1150 hrs Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: On bridge

Water Quality Field Parameters

Time: _____ Temp. (°C): _____ pH: _____ Spcond(µhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCal File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:

Comments: Retrieved continuous monitor

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (mL): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: Temp. (°C): pH: Specific(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Specific(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Specific(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4a S/N: GPS Unit _____
AquaCalc S/N: Fathometer: Laser Gun _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Site Information

Site #: BT-10 Subsegment: 120301 Date: 8/15/03 Time: 1230
Waterbody: Bayou Terrebonne Tapetown 1: 0.5 Staff Gauge 1: _____
Gauge Height 1: _____ Staff Gauge 2: _____
Gauge Height 2: _____
Site Location: At Hollywood Street Bridge
Personnel: DICKINSON, Schlarig, 061 Fontenot
Type of Work Recon Data Collection

Weather Conditions:

Clear <input checked="" type="checkbox"/>	Temperature (°F):	Wind (mph):	Wind Direction:
	Hot > 85° <input checked="" type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input checked="" type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
0-10% <input type="checkbox"/>	Cold < 50° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11-40% <input type="checkbox"/>			
41-70% <input type="checkbox"/>			
71-100% <input checked="" type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: 40010 at 1272
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): 1.60
Continuous Monitor Location: 10 ft upstream of bridge

Water Quality Field Parameters

Time:	Temp.(°C):	pH:	Specific(µhos/cm):	
D.O.:	B.O. %:	Salinity:	Depth (m):	Secchi (in):

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: BT-10 025 02
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:

Comments: Continuous Monitor Deployed at X section

Photos Taken: <input type="checkbox"/>	Picture File #: _____		
Tapedown Established: <input type="checkbox"/>	Tapedown Location: _____		
Benchmark Established: <input type="checkbox"/>	Benchmark Location: _____		
Survey Equipment Used: <input type="checkbox"/>			
Time of Travel Measurement <input type="checkbox"/>	Type of Site: Injection <input type="checkbox"/> Collection <input type="checkbox"/>		
Amount of Dye Injected (ml): _____			
Physical Site Characteristics: Natural Waterbody: <input type="checkbox"/> Man Altered Waterbody: <input checked="" type="checkbox"/> Man-Made Waterbody: <input type="checkbox"/>			
Stream Dry/Intermittent: <input type="checkbox"/>			
Stream Bottom: Sandy <input type="checkbox"/> Clay <input type="checkbox"/> Gravel <input type="checkbox"/> Hard Clay <input type="checkbox"/> Soft Silt <input checked="" type="checkbox"/> Sand/Silt <input type="checkbox"/> Rock/Gravel/Silt <input type="checkbox"/>			
Control Structure Present: <input type="checkbox"/>	Location: _____		
Type: Man Made Dam <input type="checkbox"/> Flow Regulation Device <input type="checkbox"/> Beaver Dam <input type="checkbox"/> Log Jam <input type="checkbox"/>			
Land Use: Agriculture <input type="checkbox"/> Forestry <input type="checkbox"/> Municipal <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Wetland <input type="checkbox"/>			
Percent Tree Canopy Cover 0-25% <input checked="" type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>			
Recon Information:			
Discharge Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>			
Measurement Location: _____			
Cross Section Location: _____			
Continuous Monitor Deployment: _____			
Continuous Monitor Location: _____			
Boat Accessible: <input type="checkbox"/> Nearest Launch: _____			
Bridge <input type="checkbox"/> Bridge Safe: <input type="checkbox"/>	Bridge Width: _____	Bridge Height: _____	
Profiling Measurements:			
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Equipment Used:			
In Situ Probe S/N: _____	Surveyor 4a S/N: _____	GPS Unit: _____	
AquaCalc S/N: _____	Fathometer: _____	Laser Gun: _____	
Camera S/N: _____			
References			
Convert Feet to Meters			
0.5 ft ≈ 0.15 m			
1.0 ft ≈ 0.30 m			
1.5 ft ≈ 0.45 m			
2.0 ft ≈ 0.60 m			
2.5 ft ≈ 0.75 m			

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Site Information

Site #: BT-10 Subsegment 120301 Date: 8/6/03 Time: 1230
Waterbody: Bayou Terrebonne Tapedown 1: 16.45 Staff Gauge 1:
Gauge Height 1: _____
Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
Site Location: At Hollywood Street Bridge
Personnel: Dickinson, Fontenot, Schwartz
Type of Work: Recon Data Collection
Weather Conditions:

Clear <input checked="" type="checkbox"/>	Temperature (°F):	Wind (mph):	Wind Direction:
Hot > 85° <input type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>	
Drizzle/Light Rain <input type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>	
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
0-10% <input type="checkbox"/>	Cold < 50° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11-40% <input type="checkbox"/>			
41-70% <input type="checkbox"/>			
71-100% <input type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: < 1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

IBV-73 IBa-1D.9

Water Quality Field Parameters
Time: 1230 Temp. (°C): 30.2 pH: 7.03 Specific Gravity/cm³: _____
D.O.: 2.40 D.O. %: 32.2 Salinity: 0.20 Depth (m): 0.60 Secchi (in): 36

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Droge Estimate: Dye Estimate:
Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): 154 Time (s): 5 min
Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement: Manual: Pathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____

Site GPS: Cross Section GPS:
Comments: Water Quality Samples Taken

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (mL): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurements: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: Temp. (°C): pH: Specific(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Specific(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Specific(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: 40801 Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Site Information

Site #: BT/0 Subsegment: 120301 Date: 8/11/03 Time: 1340 hr
 Waterbody: Bayou Terrebonne Tapedown 1: (4,4) Staff Gauge 1: _____
 Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: Bayou Terrebonne at Hollywood St Bridge
 Personnel: Hughes, C. Fontenot
 Type of Work: Recon Data Collection

Weather Conditions:	Temperature (°F):	Wind (mph):	Wind Direction:
Clear <input checked="" type="checkbox"/>	Hot >85° <input checked="" type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input checked="" type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
0 - 10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11 - 40% <input type="checkbox"/>			
41 - 70% <input checked="" type="checkbox"/>			
71 - 100% <input type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor SN: 40010
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: upstream of bridge

Water Quality Field Parameters

Time: _____	Temp.(°C): _____	pH: _____	Specific(μhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____ Secchi (in): _____

Flow Measurement: Measurement Location: _____
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow-Estimated: Measurement Location: _____
 Using Discharge Equipment Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): _____ Time (s): _____
 Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
 Type of Measurement Manual: Fathometer Cross Section File Name: _____
 GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments:

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information: -

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____

Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____	Temp. (°C): _____	pH: _____	Spcond(µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Time: _____	Temp. (°C): _____	pH: _____	Spcond(µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Time: _____	Temp. (°C): _____	pH: _____	Spcond(µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Equipment Used:

In Situ Probe S/N: _____ Surveyor 4a S/N: _____ GPS Unit
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Site Information

Site #: BT-14 Subsegment: 120301 Date: 8/5/03 Time: 11:45
Waterbody: Bayou Terrebonne Tapedown 1: _____ Staff Gauge 1: _____
Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____
Gauge Height 2: _____
Site Location: @ Morgan St. Bridge
Personnel: Bobby, Fontenot
Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
Clear Hot >85° <1 NW N NE
Drizzle/Light Rain Warm > 75° 1-5 SW S SE
Showers Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable
0-10% Cold < 60° >16
11 - 40%
41 - 70%
71 - 100%

Stream Characteristics: Flowing: Measurable Flow: flow both ways
Flow Direction Upstream Downstream Tidally Influenced: w/in 15 min. time
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: ≤1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters
Time: _____ Temp. (°C): _____ pH: _____ Specific (dissolved/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____
Flow Estimated: Measurement Location: 50 ft d/s Morgan St. Bridge
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____
Cross Section Measurement: Measurement Location: 50 ft. d/s Morgan St. Bridge
Type of Measurement: Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: GPS + cross section 50 ft d/s Morgan St. Bridge

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used: _____

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (mL): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:
Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time:	Temp. (°C):	pH:	Spcond (µhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Spcond (µhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Spcond (µhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:
In Situ Probe S/N: _____ Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References
Convert Feet to Meters
0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Site Information					
Site #:	Bt-11	Subsegment:	Date:	8/6/03	Time: 1035 hrs
Waterbody:	Bayou Terrebonne	Tapedown 1:	Staff Gauge 1:		
Gauge Height 1:		Tapedown 2:	Staff Gauge 2:	Gauge Height 2:	
Site Location: Morgan St. Bridge					
Personnel: Fontenot, Boffy					
Type of Work: Recon <input type="checkbox"/> Data Collection <input checked="" type="checkbox"/>					
Weather Conditions:					
Clear <input checked="" type="checkbox"/>	Hot >85° <input type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/>	N <input type="checkbox"/>	NE <input type="checkbox"/>
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input type="checkbox"/>	SW <input type="checkbox"/>	S <input type="checkbox"/>	SE <input type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/>	W <input type="checkbox"/>	
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>		
0-10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>			
11 - 40% <input checked="" type="checkbox"/>					
41 - 70% <input type="checkbox"/>					
71 - 100% <input type="checkbox"/>					
Stream Characteristics: Flowing: <input type="checkbox"/> Measurable Flow: <input type="checkbox"/> No flow					
Flow Direction Upstream <input type="checkbox"/>	Downstream <input type="checkbox"/>	Tidally Influenced: <input type="checkbox"/>			
Wind Influence: <input type="checkbox"/>	Wind Influence Direction: Upstream <input type="checkbox"/> Downstream <input type="checkbox"/>				
Algae Present <input type="checkbox"/>	Sedimentation/Turbidity Present in Water Column <input type="checkbox"/>				
Floating/Aquatic Vegetation % Surface Coverage: <1 <input type="checkbox"/> 1-25% <input type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>					
Water Quality Samples Taken: <input type="checkbox"/> Water Quality Field Parameters: <input type="checkbox"/> Profiling: <input type="checkbox"/>					
Continuous Monitor Deployed: <input type="checkbox"/>	Continuous Monitor S/N: _____				
Continuous Monitor Retrieved: <input type="checkbox"/>	Continuous Monitor Deployment Depth (m): _____				
Continuous Monitor Location: _____					
Water Quality Field Parameters					
Time: 1035	Temp. (°C): 30.06	pH: 7.14	Specific (µmos/cm): 334.3	IBV 10.8	
D.O.: 1.50	D.O. %: 120%	Salinity: 0.15	Depth (m): 1 m	Secchi (in): 4 ft.	
Flow Measurement: <input type="checkbox"/>	Measurement Location: _____				
Type of Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>					
AquaCalc File Name: _____					
Flow Estimated: <input type="checkbox"/>	Measurement Location: _____				
Using Discharge Equipment: <input type="checkbox"/>	Type: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>				
Drogue Estimate: <input type="checkbox"/>	Dye Estimate: <input type="checkbox"/>				
Right Descending Bank: Distance (ft): _____ Time (s): _____					
Mid Stream: Distance (ft): _____ Time (s): _____					
Left Descending Bank: Distance (ft): _____ Time (s): _____					
Cross Section Measurement: <input type="checkbox"/>	Measurement Location: _____				
Type of Measurement Manual: <input type="checkbox"/> Fathometer: <input type="checkbox"/> Cross Section File Name: _____					
GPS Measurement: <input type="checkbox"/>	GPS SSF File Name: _____				
Site GPS: <input type="checkbox"/>	Cross Section GPS: <input type="checkbox"/>				
Comments: _____ _____ _____ _____					

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____

Cross Section Location: _____

Continuous Monitor Deployment: _____

Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____

Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

103544
Measurement

Time: 103544 Temp. (°C): 30.06 pH: 7.14 Spcond(µhos/cm): 334.3
D.O.: 1.50 D.O. %: 20.0 Salinity: .16 Depth (m): 1 m

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4s S/N: GPS Unit
AquaCalc S/N: Fathometer: Laser Gun _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Field Site Survey doc
Revision 2.0

Site Information					
Site #:	BT-12	Subsegment:	120301	Date:	8/13/03
Waterbody:	Bayou Terrebonne	Tapedown 1:		Time:	02:29
Gauge Height 1:		Tapedown 2:		Staff Gauge 1:	
Gauge Height 2:		Staff Gauge 2:			
Site Location: Caboose St Bridge					
Personnel: B. Hughey, K. Masden					
Type of Work:	Recon <input type="checkbox"/> Data Collection <input checked="" type="checkbox"/>				
Weather Conditions:	Temperature (°F):	Wind (mph):	Wind Direction:		
Clear <input type="checkbox"/>	Hot >85° <input type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>		
Drizzle/Light Rain <input checked="" type="checkbox"/>	Warm >75° <input type="checkbox"/>	1-5 <input type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>		
Showers <input type="checkbox"/>	Mild >65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>		
Cloud Cover:	Cool >60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>		
0-10% <input type="checkbox"/>	Cold <60° <input type="checkbox"/>	>16 <input type="checkbox"/>			
11-40% <input type="checkbox"/>					
41-70% <input type="checkbox"/>					
71-100% <input checked="" type="checkbox"/>					
Stream Characteristics: Flowing: <input type="checkbox"/>	Measurable Flow: <input type="checkbox"/>				
Flow Direction Upstream <input checked="" type="checkbox"/>	Downstream <input type="checkbox"/>	Tidally Influenced: <input type="checkbox"/>			
Wind Influence: <input type="checkbox"/>		Wind Influence Direction: Upstream <input type="checkbox"/> Downstream <input checked="" type="checkbox"/>			
Algae Present <input type="checkbox"/>	Sedimentation/Turbidity Present in Water Column <input type="checkbox"/>				
Floating/Aquatic Vegetation % Surface Coverage: <1 <input type="checkbox"/> 1-25% <input type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>					
Water Quality Samples Taken: <input type="checkbox"/>	Water Quality Field Parameters: <input type="checkbox"/>	Profiling: <input type="checkbox"/>			
Continuous Monitor Deployed: <input type="checkbox"/>	Continuous Monitor S/N: _____				
Continuous Monitor Retrieved: <input type="checkbox"/>	Continuous Monitor Deployment Depth (m): _____				
Continuous Monitor Location: _____					
Water Quality Field Parameters					
Time: _____	Temp. (°C): _____	pH: _____	Spcond(µmhos/cm): _____		
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____	Secchi (in): _____	
Flow Measurement: <input checked="" type="checkbox"/>	Measurement Location: ~100' up of Caboose St				
Type of Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>					
AquaCalc File Name: _____					
Flow Estimated: <input type="checkbox"/>	Measurement Location: _____				
Using Discharge Equipment: <input type="checkbox"/>	Type: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>				
Drogue Estimate: <input type="checkbox"/> Dye Estimate: <input type="checkbox"/>					
Right Descending Bank: Distance (ft): _____	Time (s): _____				
Mid Stream: Distance (ft): _____	Time (s): _____				
Left Descending Bank: Distance (ft): _____	Time (s): _____				
Cross Section Measurement: <input type="checkbox"/>	Measurement Location: _____				
Type of Measurement Manual: <input type="checkbox"/> Fathometer <input type="checkbox"/> Cross Section File Name: _____					
GPS Measurement: <input type="checkbox"/>	GPS SSF File Name: _____				
Site GPS: <input type="checkbox"/>	Cross Section GPS: <input type="checkbox"/>				
Comments: <i>ADCP</i>					

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4a S/N: GPS Unit _____
AquaCalc S/N: Fathometer: Laser Gun _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Site Information

Site #: BT 12 Subsegment: 120301 Date: 8-5-03 Time: 11:20
Waterbody: Bayou Terrebonne Tapedown 1: _____ Staff Gauge 1: _____
Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
Site Location: 6th Calcasieu + Barrow St. Bridges
Personnel: Bobby Fontenot
Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
Clear Hot > 85° <1 NW N NE
Drizzle/Light Rain Warm > 75° 1-5 SW S SE
Showers Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable
0-10% Cold < 60° >16
11-40%
41-70%
71-100%

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: 39003
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters
Time: Temp. (°C): pH: Second (μhos/cm):
D.O.: D.O. %: Salinity: Depth (m): Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Droguer Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): 46 Time (s): 3:40
Mid Stream: Distance (ft): 46 Time (s): 3:40
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: Drogue #1 (8-5-03 evening): 46 ft in 3:40 = .20 ft/sec

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent: Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time:	Temp. (°C):	pH:	Specific(μhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Specific(μhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (°C):	pH:	Specific(μhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: _____ Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References:

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Field Site Survey doc
Revision 2.0
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Site Information

Site #: BT-17 Subsegment: 120301 Date: 8/16/03 Time: 10:05
Waterbody: Bayou Terrebonne Tapedown 1: _____ Staff Gauge 1: _____
Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
Site Location: _____
Personnel: Biffy, Content
Type of Work: Recon Data Collection
Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
 Clear Hot > 85° <1 NW N NB
 Drizzle/Light Rain Warm > 75° 1-5 SW S SE
 Showers Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable
 0-10% Cold < 60° >16
 11 - 40%
 41 - 70%
 71 - 100%
Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%
Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____
Water Quality Field Parameters
Time: 1005 Temp. (°C): 30.02 pH: 7.13 Specific (μmos/cm): 310.4 (BV) 10.8
D.O.: 1.17 D.O. %: 15.5 Salinity: 0.15 Depth (m): 1 m Secchi (in): .75 m
Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____
Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____
Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: Drogue time of travel measurement 42' in 9 min 20 sec

Drogue: 8/6 morning → 42' in 9 min 20 sec = .075 ft/sec
8/6 mid-day → 54' in 2 min 42 sec = .33 ft/sec
8/6 evening → 45' in 4 min 45 sec = .15 ft/sec

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (mL): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:
Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:
IN Situ measurement
Time: 1005 Temp. (°C): 30.0 pH: 7.13 Spcond(µhos/cm): 310.4
D.O.: 1.17 D.O. %: 155 Salinity: 0.15 Depth (m): 1m

Time: _____ Temp. (°C): _____ pH: _____ Spcond(µhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp. (°C): _____ pH: _____ Spcond(µhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Equipment Used:
In Situ Probe S/N: 40810 Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References
Convert Feet to Meters
0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Field Site Survey.doc
Revision 2.0

Site Information

Site #: BTQ Subsegment: 120301 Date: 2/16/03 Time: 12:30
Waterbody: Bayou Terrebonne Tapedown 1: _____ Staff Gauge 1: _____
Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
Site Location: Cabasse St Bridge
Personnel: B. Huchez X Marder

Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
Clear Hot >85° <1 NW N NE
Drizzle/Light Rain Warm > 75° 1-5 SW S SE
Showers Mild > 65° 6-10 E W
Cloud Cover: Cool < 60° 11-15 Variable
0 - 10% Cold < 60° >16
11 - 40%
41 - 70%
71 - 100%

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Columns
Floating/Aquatic Vegetation % Surface Coverage: <1 1-75% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters

Time: _____ Temp. (°C): _____ pH: _____ Specific(µmhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (m): _____

Flow Measurement: Measurement Location: ~10' N of Enlasse R.
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:

Comments: ADCP

Photos Taken: <input type="checkbox"/>	Picture File #: _____		
Tapedown Established: <input type="checkbox"/>	Tapedown Location: _____		
Benchmark Established: <input type="checkbox"/>	Benchmark Location: _____		
Survey Equipment Used: _____			
Time of Travel Measurement: <input type="checkbox"/>	Type of Site: Injection <input type="checkbox"/> Collection <input type="checkbox"/>		
Amount of Dye Injected (ml): _____			
Physical Site Characteristics: Natural Waterbody: <input type="checkbox"/> Man Altered Waterbody: <input type="checkbox"/> Man-Made Waterbody: <input type="checkbox"/>			
Stream Dry/Intermittent: <input type="checkbox"/>			
Stream Bottom: Sandy <input type="checkbox"/> Clay <input type="checkbox"/> Gravel <input type="checkbox"/> Hard Clay <input type="checkbox"/> Soft Silt <input type="checkbox"/> Sand/Silt <input type="checkbox"/> Rock/Gravel/Silt <input type="checkbox"/>			
Control Structure Present: <input type="checkbox"/> Location: _____			
Type: Man Made Dam <input type="checkbox"/> Flow Regulation Device <input type="checkbox"/> Beaver Dam <input type="checkbox"/> Log Jam <input type="checkbox"/>			
Land Use: Agriculture <input type="checkbox"/> Forestry <input type="checkbox"/> Municipal <input type="checkbox"/> Industrial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Wetland <input type="checkbox"/>			
Percent Tree Canopy Cover 0-25% <input type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>			
Recon Information:			
Discharge Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>			
Measurement Location: _____			
Cross Section Location: _____			
Continuous Monitor Deployment: _____			
Continuous Monitor Location: _____			
Boat Accessible: <input type="checkbox"/> Nearest Launch: _____			
Bridge <input type="checkbox"/>	Bridge Safe: <input type="checkbox"/>	Bridge Width: _____	Bridge Height: _____
Profiling Measurements:			
Time: _____	Temp. (°C): _____	pH: _____	Specific(μmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Specific(μmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Specific(μmhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Equipment Used:			
In Situ Probe S/N: _____	Surveyor 4a S/N: _____	GPS Unit: _____	
AquaCalc S/N: _____	Fathometer: _____	Laser Gun: _____	
Camera S/N: _____			
References			
Convert Feet to Meters			
0.5 ft ≈ 0.15 m			
1.0 ft ≈ 0.30 m			
1.5 ft ≈ 0.45 m			
2.0 ft ≈ 0.60 m			
2.5 ft ≈ 0.75 m			

Site Information

Site #: OT 12 Subsegment: 120301 Date: 8/16/03 Time: 13:49
 Waterbody: Bayer Terrebonne Tapedown 1: _____ Staff Gauge 1: _____
 Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
 Site Location: Cabasse SE Bridge
 Personnel: B Hubsch N. Madsen

Type of Work: Recon Data Collection

Weather Conditions:	Temperature (°F):	Wind (mph):	Wind Direction:
Clear <input checked="" type="checkbox"/>	Hot >85° <input checked="" type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input checked="" type="checkbox"/> NE <input type="checkbox"/>
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input checked="" type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
0 - 10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11 - 40% <input type="checkbox"/>			
41 - 70% <input checked="" type="checkbox"/>			
71 - 100% <input type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
 Flow Direction Upstream Downstream Tidally Influenced:
 Wind Influence: Wind Influence Direction: Upstream Downstream
 Algae Present Sedimentation/Turbidity Present in Water Column
 Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
 Continuous Monitor Deployed: Continuous Monitor S/N: _____
 Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
 Continuous Monitor Location: _____

Water Quality Field Parameters

Time: _____	Temp. (°C): _____	pH: _____	Spcond(µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____ Secchi (in): _____

Flow Measurement: Measurement Location: ~100 ft from Cabasse Br.
 Type of Measurement: Wading Bridge Board Boat Board
 AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
 Using Discharge Equipment: Type: Wading Bridge Board Boat Board
 Drogue Estimate: Dye Estimate:
 Right Descending Bank: Distance (ft): _____ Time (s): _____
 Mid Stream: Distance (ft): _____ Time (s): _____
 Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
 Type of Measurement Manual: Fathometer Cross Section File Name: _____
 GPS Measurement: GPS SSF File Name: _____
 Site GPS: Cross Section GPS:

Comments: ADCP

Photos Taken: <input type="checkbox"/>	Picture File #: _____		
Tapedown Established: <input type="checkbox"/>	Tapedown Location: _____		
Benchmark Established: <input type="checkbox"/>	Benchmark Location: _____		
Survey Equipment Used: <input type="checkbox"/>			
Time of Travel Measurement: <input type="checkbox"/>	Type of Site: Injection <input type="checkbox"/> Collection <input type="checkbox"/>		
Amount of Dye Injected (ml): _____			
Physical Site Characteristics: Natural Waterbody: <input type="checkbox"/> Man Altered Waterbody: <input type="checkbox"/> Man-Made Waterbody: <input type="checkbox"/>			
Stream Dry/Intermittent: <input type="checkbox"/>			
Stream Bottom: Sandy <input type="checkbox"/> Clay <input type="checkbox"/> Gravel <input type="checkbox"/> Hard Clay <input type="checkbox"/> Soft Silt <input type="checkbox"/> Sand/Silt <input type="checkbox"/> Rock/Gravel/Silt <input type="checkbox"/>			
Control Structure Present: <input type="checkbox"/> Location: _____ Type: Man Made Dam <input type="checkbox"/> Flow Regulation Device <input type="checkbox"/> Beaver Dam <input type="checkbox"/> Log Jam <input type="checkbox"/>			
Land Use: Agriculture <input type="checkbox"/> Forestry <input type="checkbox"/> Municipal <input type="checkbox"/> Industrial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Wetland <input type="checkbox"/>			
Percent Tree Canopy Cover 0-25% <input type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>			
Recon Information:			
Discharge Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>			
Measurement Location: _____			
Cross Section Location: _____			
Continuous Monitor Deployment: _____			
Continuous Monitor Location: _____			
Boat Accessible: <input type="checkbox"/> Nearest Launch: _____			
Bridge <input type="checkbox"/>	Bridge Safe: <input type="checkbox"/>	Bridge Width: _____	Bridge Height: _____
Profiling Measurements:			
Time: _____	Temp. (°C): _____	pH: _____	Spcond(µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond(µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp. (°C): _____	pH: _____	Spcond(µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Equipment Used:			
In Situ Probe S/N: _____	Surveyor 4a S/N: _____	GPS Unit: _____	
AquaCalc S/N: _____	Fathometer: _____	Laser Gun: _____	
Camera S/N: _____			
References			
Convert Feet to Meters			
0.5 ft ≈ 0.15 m			
1.0 ft ≈ 0.30 m			
1.5 ft ≈ 0.45 m			
2.0 ft ≈ 0.60 m			
2.5 ft ≈ 0.75 m			

Site Information

Site #: BT12 Subsegment: _____ Date: 8/11/03 Time: 12:50 hr
Waterbody: Bayou Terrebonne Tapedown 1: _____ Staff Gauge 1: _____
Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____
Gauge Height 2: _____
Site Location: Bayou Terrebonne Gabasse St. Bridge
Personnel: Hughes, Cal Fonkert

Type of Work: Recon Data Collection

Weather Conditions:

Clear <input checked="" type="checkbox"/>	Temperature (°F): Hot > 85° <input checked="" type="checkbox"/>	Wind (mph): <1 <input type="checkbox"/>	Wind Direction: NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>
Dizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input checked="" type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
0 - 10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11 - 40% <input type="checkbox"/>			
41 - 70% <input checked="" type="checkbox"/>			
71 - 100% <input type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic V-vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: 37003
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: 50 yds upstream of bridge

Water Quality Field Parameters

Time: _____	Temp (°C): _____	pH: _____	Specific(μhos/cm): _____	
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____	Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____

GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: _____

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Spcond(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4a S/N: GPS Unit
AquaCalc S/N: Fathometer: Laser Gun
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Site Information

Site # BC-01 Subsegment: 120301 Date: 08/04/03 Time: 12:10 hrs
Waterbody: BAYOU CANE Tapedown 1: N/A Staff Gauge 1:
Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____
Gauge Height 2: _____
Site Location: b/w UNMARKED Taps & Pumps
Personnel: DARSEY / PHILLIPPE / GAVANT
Type of Work: Recon Data Collection

Weather Conditions:

Clear <input checked="" type="checkbox"/>	Temperature (°F): Hot >85° <input checked="" type="checkbox"/>	Wind (mph): <1 <input type="checkbox"/>	Wind Direction: NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input checked="" type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input checked="" type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
0-10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11-40% <input type="checkbox"/>			
41-70% <input type="checkbox"/>			
71-100% <input checked="" type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: < 1% 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: 125618 Continuous Monitor SN: 40811
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): 1.0 m
Continuous Monitor Location: ~ 60 ft upstream of Pump Station

Water Quality Field Parameters

Time: _____	Temp. (°C): _____	pH: _____	Specific Gravity/cm: _____	
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____	Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Droge Estimate: Dye Estimate:
Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: ~ 70 ft upstream of Pumps
Type of Measurement Manual: Fathometer Cross Section File Name: BC-01 DS

GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: - pumps not running
- Monitor for BT-02 used here instead
& BC-01 since other was not working
on BC-01 cont now.

Photos Taken: <input type="checkbox"/>	Picture File #: _____																								
Tapedown Established: <input type="checkbox"/>	Tapedown Location: _____																								
Benchmark Established: <input type="checkbox"/>	Benchmark Location: _____																								
Survey Equipment Used: <input type="checkbox"/>																									
Time of Travel Measurement: <input type="checkbox"/>	Type of Site: Injection <input type="checkbox"/> Collection <input type="checkbox"/>																								
Amount of Dye Injected (ml): _____																									
Physical Site Characteristics: Natural Waterbody: <input checked="" type="checkbox"/> Man Altered Waterbody: <input checked="" type="checkbox"/> Man-Made Waterbody: <input type="checkbox"/> Stream Dry/Intermittent: <input type="checkbox"/> Stream Bottom: Sandy <input type="checkbox"/> Clay <input type="checkbox"/> Gravel <input type="checkbox"/> Hard Clay <input type="checkbox"/> Soft Silt <input checked="" type="checkbox"/> Sand/Silt <input type="checkbox"/> Rock/Gravel/Silt <input type="checkbox"/> Control Structure Present: <input type="checkbox"/> Location: ~160 yds upstream of confluence w/ Type: Man Made Dam <input type="checkbox"/> Flow Regulation Device <input checked="" type="checkbox"/> Beaver Dam <input type="checkbox"/> Log Jam <input type="checkbox"/> Land Use: Agriculture <input type="checkbox"/> Forestry <input type="checkbox"/> Municipal <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Wetland <input type="checkbox"/> Percent Tree Canopy Cover 0-25% <input checked="" type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>																									
Recon Information: Discharge Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/> Measurement Location: _____ Cross Section Location: _____ Continuous Monitor Deployment: _____ Continuous Monitor Location: _____ Boat Accessible: <input type="checkbox"/> Nearest Launch: _____ Bridge Bridge Safe: Bridge Width: Bridge Height: 																									
Profiling Measurements: <table border="1"> <thead> <tr> <th>Time:</th> <th>Temp. (C):</th> <th>pH:</th> <th>Specific (hmos/cm):</th> </tr> </thead> <tbody> <tr> <td>D.O.:</td> <td>D.O. %:</td> <td>Salinity:</td> <td>Depth (m):</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Time:</th> <th>Temp. (C):</th> <th>pH:</th> <th>Specific (hmos/cm):</th> </tr> </thead> <tbody> <tr> <td>D.O.:</td> <td>D.O. %:</td> <td>Salinity:</td> <td>Depth (m):</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Time:</th> <th>Temp. (C):</th> <th>pH:</th> <th>Specific (hmos/cm):</th> </tr> </thead> <tbody> <tr> <td>D.O.:</td> <td>D.O. %:</td> <td>Salinity:</td> <td>Depth (m):</td> </tr> </tbody> </table>		Time:	Temp. (C):	pH:	Specific (hmos/cm):	D.O.:	D.O. %:	Salinity:	Depth (m):	Time:	Temp. (C):	pH:	Specific (hmos/cm):	D.O.:	D.O. %:	Salinity:	Depth (m):	Time:	Temp. (C):	pH:	Specific (hmos/cm):	D.O.:	D.O. %:	Salinity:	Depth (m):
Time:	Temp. (C):	pH:	Specific (hmos/cm):																						
D.O.:	D.O. %:	Salinity:	Depth (m):																						
Time:	Temp. (C):	pH:	Specific (hmos/cm):																						
D.O.:	D.O. %:	Salinity:	Depth (m):																						
Time:	Temp. (C):	pH:	Specific (hmos/cm):																						
D.O.:	D.O. %:	Salinity:	Depth (m):																						
Equipment Used: In Situ Probe S/N: DIST SURVEYOR 4A S/N: 44 ft GPS Unit AquaCalc S/N: FATHOMETER: 4.7 ft LASER SCAN Camera S/N: RDB RDB 5.7 ft 0.8 ft References: BANK 57 ft 0 ft 1.9 ft Convert Feet to Meters: 0.5 ft 0.15 m 4.7 ft 0.8 ft 1.0 ft 0.30 m 5.7 ft 1.0 ft 1.5 ft 0.45 m 5.6 ft 1.2 ft 2.0 ft 0.60 m 5.9 ft 1.4 ft 2.5 ft 0.75 m 5.1 ft 1.7 ft 48 ft 2.0 ft 5.7 ft 1.9 ft 45.5 ft 2.1 ft 5.6 ft 1.8 ft 15 ft 2.4 ft 4.5 ft 1.7 ft N.B. LDB																									

Site Information

Site #: BC-01 Subsegment: 120301 Date: 05/08/03 Time: 0800
Waterbody: BAIDU CANE Tapedown 1: NH Staff Gauge 1:
Gauge Height 1: Tapedown 2: Staff Gauge 2: Gauge Height 2:
Site Location: b/w UNNAMED TRIBUTARY & PUMP STATION
Personnel: BIGNAC / DARLEY / PHILIPPE
Type of Work: Recon Data Collection

Weather Conditions:

Clear <input type="checkbox"/>	Temperature (°F): Hot > 85° <input checked="" type="checkbox"/>	Wind (mph): <1 <input type="checkbox"/>	Wind Direction: NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>
Drizzle/Light Rain <input checked="" type="checkbox"/>	Warm > 75° <input type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input checked="" type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
0-10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11-40% <input type="checkbox"/>			
41-70% <input type="checkbox"/>			
71-100% <input checked="" type="checkbox"/>			

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: _____
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: _____

Water Quality Field Parameters

Time: 0800 Temp.(°C): 29.18 pH: 6.93 Specific(µmos/cm): 272.4 D_{Batt} = 10.7
D.O.: 1.48 D.O. %: 18.2 Salinity: 0.13 Depth (m): 1m Secchi (in): 30in

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Droge Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSP File Name: _____
Site GPS: Cross Section GPS:
Comments: NO FLOW

* IN SITU'S DISSOLVED OXYGEN PROBE HAD
BUBBLE DURING POST-CALIBRATION *

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: Bridge Height: _____

Profiling Measurements:

Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp. (C):	pH:	Spcond(hmos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: 40408 Surveyor 4a S/N: GPS Unit
AquaCalc S/N: Fathometer: Laser Gun
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft	0.15 m
1.0 ft	0.30 m
1.5 ft	0.45 m
2.0 ft	0.60 m
2.5 ft	0.75 m

Field Site Survey.doc
Revision 2.0
Revised 3/25/03

Site Information					
Site #:	BC-01	Subsegment:	120301	Date:	9/7/03
Waterbody:	Bayou Cane at D'Terrebonne Tapdown 1			Time:	12:00
Gauge Height 1:	Tapdown 2:	Staff Gauge 1:	Staff Gauge 2:	Gauge Height 2:	
Site Location: next to pump station					
Personnel: Fontenot, Buffy					
Type of Work: Recon <input type="checkbox"/> Data Collection <input checked="" type="checkbox"/>					
Weather Conditions:					
Clear <input checked="" type="checkbox"/>	Hot > 85° <input type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/>	N <input type="checkbox"/>	NE <input type="checkbox"/>
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input checked="" type="checkbox"/>	1-5 <input type="checkbox"/>	SW <input type="checkbox"/>	S <input type="checkbox"/>	SE <input type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/>	W <input type="checkbox"/>	
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>		
0 - 10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>			
11 - 40% <input type="checkbox"/>					
41 - 70% <input checked="" type="checkbox"/>					
71 - 100% <input type="checkbox"/>					
Stream Characteristics: Flowing: <input type="checkbox"/> Measurable Flow: <input type="checkbox"/>					
Flow Direction Upstream <input type="checkbox"/>	Downstream <input type="checkbox"/>	Tidally Influenced: <input type="checkbox"/>			
Wind Influence: <input type="checkbox"/>		Wind Influence Direction: Upstream <input type="checkbox"/>	Downstream <input type="checkbox"/>		
Algae Present: <input type="checkbox"/>	Sedimentation/Turbidity Present in Water Column <input type="checkbox"/>				
Floating/Aquatic Vegetation % Surface Coverage: <1 <input type="checkbox"/> 1-25% <input type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>					
Water Quality Samples Taken: <input type="checkbox"/> Water Quality Field Parameters: <input type="checkbox"/> Profiling: <input type="checkbox"/>					
Continuous Monitor Deployed: <input type="checkbox"/>	Continuous Monitor S/N: 40811				
Continuous Monitor Retrieved: <input checked="" type="checkbox"/>	Continuous Monitor Deployment Depth (m):				
Continuous Monitor Location:					
Water Quality Field Parameters					
Time: _____	Temp. (°C): _____	pH: _____	Specific (μmos/cm): _____		
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____	Secchi (in): _____	
Flow Measurement: <input type="checkbox"/> Measurement Location: _____					
Type of Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>					
AquaCalc File Name: _____					
Flow Estimated: <input type="checkbox"/> Measurement Location: _____					
Using Discharge Equipment: <input type="checkbox"/> Type: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>					
Drogue Estimate: <input type="checkbox"/> Dye Estimate: <input type="checkbox"/>					
Right Descending Bank: Distance (ft): _____ Time (s): _____					
Mid Stream: Distance (ft): _____ Time (s): _____					
Left Descending Bank: Distance (ft): _____ Time (s): _____					
Cross Section Measurement: <input type="checkbox"/> Measurement Location: _____					
Type of Measurement Manual: <input type="checkbox"/> Fathometer <input type="checkbox"/> Cross Section File Name: _____					
GPS Measurement: <input type="checkbox"/> GPS SSF File Name: _____					
Site GPS: <input type="checkbox"/> Cross Section GPS: <input type="checkbox"/>					
Comments: _____ _____ _____ _____					

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used: _____

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: Bayou Cane @ MLK Blvd.
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time:	Temp.(°C):	pH:	Spcond(µhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp.(°C):	pH:	Spcond(µhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Time:	Temp.(°C):	pH:	Spcond(µhos/cm):
D.O.:	D.O. %:	Salinity:	Depth (m):

Equipment Used:

In Situ Probe S/N: Surveyor 4a S/N: GPS Unit: _____
AquaCalc S/N: Pathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft = 0.15 m
1.0 ft = 0.30 m
1.5 ft = 0.45 m
2.0 ft = 0.60 m
2.5 ft = 0.75 m

Field Site Survey.doc
Revision 2.0
Revised 3/25/01

Site Information

Site #: ICtw1 Subsegment: 120301 Date: 8/16/07 Time: 11:00
Waterbody: Intracoastal Waterway Tapedown 1: 2.55 Staff Gauge 1:
Gauge Height 1: _____ Tapedown 2: _____ Staff Gauge 2: _____ Gauge Height 2: _____
Site Location: Bayou Terrebonne @ Intracoastal Waterway
Personnel: B. Poff, L. Fontenot
Type of Work: Recon Data Collection

Weather Conditions: Temperature (°F): Wind (mph): Wind Direction:
Clear Hot > 85° <1 NW N NE
Drizzle/Light Rain Warm > 75° 1-5 SW S SE
Showers Mild > 65° 6-10 E W
Cloud Cover: Cool > 60° 11-15 Variable
0-10% Cold < 60° >16
11-40%
41-70%
71-100%

Stream Characteristics: Flowing: Measurable Flow:
Flow Direction Upstream Downstream Tidally Influenced:
Wind Influence: Wind Influence Direction: Upstream Downstream
Algae Present Sedimentation/Turbidity Present in Water Column
Floating/Aquatic Vegetation % Surface Coverage: <1 1-25% 26-50% 51-75% 76-100%

Water Quality Samples Taken: Water Quality Field Parameters: Profiling:
Continuous Monitor Deployed: Continuous Monitor S/N: 39001
Continuous Monitor Retrieved: Continuous Monitor Deployment Depth (m): _____
Continuous Monitor Location: @ USGS gauge

Water Quality Field Parameters
Time: _____ Temp. (°C): _____ pH: _____ Scond (μhos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

Flow Measurement: Measurement Location: _____
Type of Measurement: Wading Bridge Board Boat Board
AquaCalc File Name: _____

Flow Estimated: Measurement Location: _____
Using Discharge Equipment: Type: Wading Bridge Board Boat Board
Drogue Estimate: Dye Estimate:
Right Descending Bank: Distance (ft): _____ Time (s): _____
Mid Stream: Distance (ft): _____ Time (s): _____
Left Descending Bank: Distance (ft): _____ Time (s): _____

Cross Section Measurement: Measurement Location: _____
Type of Measurement Manual: Fathometer Cross Section File Name: _____
GPS Measurement: GPS SSF File Name: _____
Site GPS: Cross Section GPS:
Comments: _____

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: end of downtown boardwalk
Survey Equipment Used:

Time of Travel Measurement Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____	Temp. (°C): _____	pH: _____	Spcond(µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Time: _____	Temp. (°C): _____	pH: _____	Spcond(µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Time: _____	Temp. (°C): _____	pH: _____	Spcond(µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Equipment Used:

In Situ Probe S/N: _____ Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References:

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Site Information			
Site #:	TOUR 1	Subsegment:	120301
Waterbody:	TOUR	Tapedown 1:	Staff Gauge 1:
Gauge Height 1:		Tapedown 2:	Staff Gauge 2:
Site Location: Vonder Hwy 24 Bridge			
Personnel: B Huchey & MASDEN			
Type of Work:	Recon	Data Collection	<input checked="" type="checkbox"/>
Weather Conditions:	Temperature (°F):	Wind (mph):	Wind Direction:
Clear <input checked="" type="checkbox"/>	Hot >85° <input type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input checked="" type="checkbox"/>	1-5 <input type="checkbox"/>	SW <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>
0-10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>	
11-40% <input type="checkbox"/>			
41-70% <input checked="" type="checkbox"/>			
71-100% <input type="checkbox"/>			
Stream Characteristics: Flowing: <input checked="" type="checkbox"/>	Measurable Flow: <input type="checkbox"/>		
Flow Direction Upstream <input type="checkbox"/>	Downstream <input checked="" type="checkbox"/>	Tidally Influenced: <input type="checkbox"/>	
Wind Influence: <input type="checkbox"/>		Wind Influence Direction: Upstream <input type="checkbox"/> Downstream <input type="checkbox"/>	
Algae Present <input type="checkbox"/>	Sedimentation/Turbidity Present in Water Column <input type="checkbox"/>		
Floating/Aquatic Vegetation % Surface Coverage: <1 <input checked="" type="checkbox"/> 1-25% <input type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>			
Water Quality Samples Taken: <input type="checkbox"/>	Water Quality Field Parameters: <input type="checkbox"/>	Profiling: <input type="checkbox"/>	
Continuous Monitor Deployed: <input type="checkbox"/>	Continuous Monitor S/N: _____		
Continuous Monitor Retrieved: <input type="checkbox"/>	Continuous Monitor Deployment Depth (m): _____		
Continuous Monitor Location: _____			
Water Quality Field Parameters			
Time: _____	Temp. (°C): _____	pH: _____	Spcond (µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____ Secchi (in): _____
Flow Measurement: <input checked="" type="checkbox"/>	Measurement Location: Same as Site		
Type of Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>			
AquaCalc File Name: _____			
Flow Estimated: <input type="checkbox"/>	Measurement Location: _____		
Using Discharge Equipment: <input type="checkbox"/>	Type: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>		
Drogue Estimate: <input type="checkbox"/>	Dye Estimate: <input type="checkbox"/>		
Right Descending Bank: Distance (ft): _____	Time (s): _____		
Mid Stream: Distance (ft): _____	Time (s): _____		
Left Descending Bank: Distance (ft): _____	Time (s): _____		
Cross Section Measurement: <input type="checkbox"/>	Measurement Location: _____		
Type of Measurement Manual: <input type="checkbox"/> Fathometer <input type="checkbox"/> Cross Section File Name: _____			
GPS Measurement: <input type="checkbox"/>	GPS SSF File Name: _____		
Site GPS: <input type="checkbox"/>	Cross Section GPS: <input type="checkbox"/>		
Comments: AOC			
_____ _____ _____			

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____	Temp. (°C): _____	pH: _____	Spcond(µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Time: _____	Temp. (°C): _____	pH: _____	Spcond(µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Time: _____	Temp. (°C): _____	pH: _____	Spcond(µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Equipment Used:

In Situ Probe S/N: _____ Surveyor 4a S/N: _____ GPS Unit _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Site Information					
Site #:	ICNW-1	Subsegment:	120301	Date:	8/6/03 Time: 09:00 hrs
Waterbody:	Bayou Terrebonne	Tapedown 1:	2.58	Staff Gauge 1:	
Gauge Height 1:		Tapedown 2:		Staff Gauge 2:	
Site Location:	at Intracoastal Canal				
Personnel:	Fenton, Boffy				
Type of Work:	Recon <input type="checkbox"/> Data Collection <input checked="" type="checkbox"/>				
Weather Conditions:	Temperature (°F):	Wind (mph):	Wind Direction:		
Clear <input checked="" type="checkbox"/>	Hot > 85° <input type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>		
Drizzle/Light Rain <input type="checkbox"/>	Warm > 75° <input checked="" type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input checked="" type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>		
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>		
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>		
0-10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>			
11 - 40% <input checked="" type="checkbox"/>					
41 - 70% <input type="checkbox"/>					
71 - 100% <input type="checkbox"/>					
Stream Characteristics:	Flowing: <input checked="" type="checkbox"/>	Measurable Flow: <input type="checkbox"/>			
Flow Direction Upstream <input type="checkbox"/>	Downstream <input checked="" type="checkbox"/>	Tidally Influenced: <input type="checkbox"/>			
Wind Influence: <input type="checkbox"/>	Wind Influence Direction: Upstream <input type="checkbox"/> Downstream <input checked="" type="checkbox"/>				
Algae Present <input type="checkbox"/>	Sedimentation/Turbidity Present in Water Column <input checked="" type="checkbox"/>				
Floating/Aquatic Vegetation % Surface Coverage:	<1 <input checked="" type="checkbox"/> 1-25% <input type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>				
Water Quality Samples Taken: <input checked="" type="checkbox"/>	Water Quality Field Parameters: <input type="checkbox"/>	Profiling: <input type="checkbox"/>			
Continuous Monitor Deployed: <input type="checkbox"/>	Continuous Monitor S/N: 39001				
Continuous Monitor Retrieved: <input type="checkbox"/>	Continuous Monitor Deployment Depth (m): 1m				
Continuous Monitor Location:					
Water Quality Field Parameters					
Time: 0900	Temp. (°C): 31.26	pH: 7.30	Specific (uhms/cm): 276.7		
D.O.: 3.81	D.O. %: 51.4	Salinity: 0.13	Depth (m): 4.5	Secchi (in): .45	
Flow Measurement: <input type="checkbox"/>	Measurement Location: _____				
Type of Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>					
AquaCalc File Name: _____					
Flow Estimated: <input type="checkbox"/>	Measurement Location: _____				
Using Discharge Equipment: <input type="checkbox"/>	Type: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>				
Drogue Estimate: <input type="checkbox"/>	Dye Estimate: <input type="checkbox"/>				
Right Descending Bank: Distance (ft): _____	Time (s): _____				
Mid Stream: Distance (ft): _____	Time (s): _____				
Left Descending Bank: Distance (ft): _____	Time (s): _____				
Cross Section Measurement: <input type="checkbox"/>	Measurement Location: _____				
Type of Measurement Manual: <input type="checkbox"/> Fathometer <input type="checkbox"/> Cross Section File Name: _____					
GPS Measurement: <input checked="" type="checkbox"/>	GPS SSF File Name: ICNW-1				
Site GPS: <input type="checkbox"/>	Cross Section GPS: <input type="checkbox"/>				
Comments:	_____ _____ _____				

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover: 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____

Continuous Monitor Deployment: _____
Continuous Monitor Location: _____

Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: Temp. (°C): pH: Specific(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Specific(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Time: Temp. (°C): pH: Specific(µhos/cm):
D.O.: D.O. %: Salinity: Depth (m):

Equipment Used:

In Situ Probe S/N: _____ Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

Convert Feet to Meters

0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

Site Information					
Site #:	16442-1	Subsegment:	1203-1	Date:	8/7/03
Waterbody:	Bayou Terrebonne at Intercostal 100 Tapdown 1; 2.64				
Gauge Height 1:	Tapdown 1:	Staff Gauge 1:	Time: 10:50		
Gauge Height 2:	Tapdown 2:	Staff Gauge 2:	Gauge Height 2:		
Site Location: Confluence of Bayou Terrebonne and Teww					
Personnel: Boffy, Fontenot					
Type of Work:	Recon <input type="checkbox"/> Data Collection <input checked="" type="checkbox"/>				
Weather Conditions:	Temperature (°F):	Wind (mph):	Wind Direction:		
Clear <input checked="" type="checkbox"/>	Hot >85° <input type="checkbox"/>	<1 <input type="checkbox"/>	NW <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/>		
Drizzle/Light Rain <input type="checkbox"/>	Warm >75° <input checked="" type="checkbox"/>	1-5 <input checked="" type="checkbox"/>	SW <input checked="" type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/>		
Showers <input type="checkbox"/>	Mild > 65° <input type="checkbox"/>	6-10 <input type="checkbox"/>	E <input type="checkbox"/> W <input type="checkbox"/>		
Cloud Cover:	Cool > 60° <input type="checkbox"/>	11-15 <input type="checkbox"/>	Variable <input type="checkbox"/>		
0-10% <input type="checkbox"/>	Cold < 60° <input type="checkbox"/>	>16 <input type="checkbox"/>			
11 - 40% <input type="checkbox"/>					
41 - 70% <input checked="" type="checkbox"/>					
71 - 100% <input type="checkbox"/>					
Stream Characteristics: Flowing: <input type="checkbox"/>	Measurable Flow: <input type="checkbox"/>				
Flow Direction Upstream <input type="checkbox"/>	Downstream <input type="checkbox"/>	Tidally Influenced: <input type="checkbox"/>			
Wind Influence: <input type="checkbox"/>	Wind Influence Direction: Upstream <input type="checkbox"/> Downstream <input type="checkbox"/>				
Algae Present <input type="checkbox"/>	Sedimentation/Turbidity Present in Water Column <input type="checkbox"/>				
Floating/Aquatic Vegetation % Surface Coverage: <1 <input type="checkbox"/> 1-75% <input type="checkbox"/> 26-50% <input type="checkbox"/> 51-75% <input type="checkbox"/> 76-100% <input type="checkbox"/>					
Water Quality Samples Taken: <input type="checkbox"/>	Water Quality Field Parameters: <input type="checkbox"/>	Profiling: <input type="checkbox"/>			
Continuous Monitor Deployed: <input type="checkbox"/>	Continuous Monitor S/N: 39001				
Continuous Monitor Retrieved: <input checked="" type="checkbox"/>	Continuous Monitor Deployment Depth (m):				
Continuous Monitor Location:					
Water Quality Field Parameters					
Time:	Temp.(°C):	pH:	Spcond(µhos/cm):		
D.O.:	D.O. %:	Salinity:	Depth (m):	Secchi (in):	
Flow Measurement: <input type="checkbox"/>	Measurement Location: _____				
Type of Measurement: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>					
AquaCalc File Name: _____					
Flow Estimated: <input type="checkbox"/>	Measurement Location: _____				
Using Discharge Equipment: <input type="checkbox"/> Type: Wading <input type="checkbox"/> Bridge Board <input type="checkbox"/> Boat Board <input type="checkbox"/>					
Drogue Estimate: <input type="checkbox"/> Dye Estimate: <input type="checkbox"/>					
Right Descending Bank: Distance (ft): _____ Time (s): _____					
Mid Stream: Distance (ft): _____ Time (s): _____					
Left Descending Bank: Distance (ft): _____ Time (s): _____					
Cross Section Measurement: <input type="checkbox"/>	Measurement Location: _____				
Type of Measurement Manual: <input type="checkbox"/> Fathometer <input type="checkbox"/> Cross Section File Name: _____					
GPS Measurement: <input type="checkbox"/>	GPS SSF File Name: _____				
Site GPS: <input type="checkbox"/>	Cross Section GPS: <input type="checkbox"/>				
Comments: _____ _____ _____ _____					

Photos Taken: Picture File #: _____

Tapedown Established: Tapedown Location: _____
Benchmark Established: Benchmark Location: _____
Survey Equipment Used:

Time of Travel Measurement: Type of Site: Injection Collection
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: Man Altered Waterbody: Man-Made Waterbody:
Stream Dry/Intermittent:
Stream Bottom: Sandy Clay Gravel Hard Clay Soft Silt Sand/Silt Rock/Gravel/Silt
Control Structure Present: Location: _____
Type: Man Made Dam Flow Regulation Device Beaver Dam Log Jam
Land Use: Agriculture Forestry Municipal Industrial Field/Pasture Wetland
Percent Tree Canopy Cover 0-25% 26-50% 51-75% 76-100%

Recon Information:

Discharge Measurement: Wading Bridge Board Boat Board
Measurement Location: _____
Cross Section Location: _____
Continuous Monitor Deployment: _____
Continuous Monitor Location: _____
Boat Accessible: Nearest Launch: _____
Bridge Bridge Safe: Bridge Width: _____ Bridge Height: _____

Profiling Measurements:

Time: _____	Temp. (°C): _____	pH: _____	Specific (µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Time: _____	Temp. (°C): _____	pH: _____	Specific (µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Time: _____	Temp. (°C): _____	pH: _____	Specific (µhos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Equipment Used:

In Situ Probe S/N: _____ Surveyor 4a S/N: _____ GPS Unit: _____
AquaCalc S/N: _____ Fathometer: _____ Laser Gun: _____
Camera S/N: _____

References

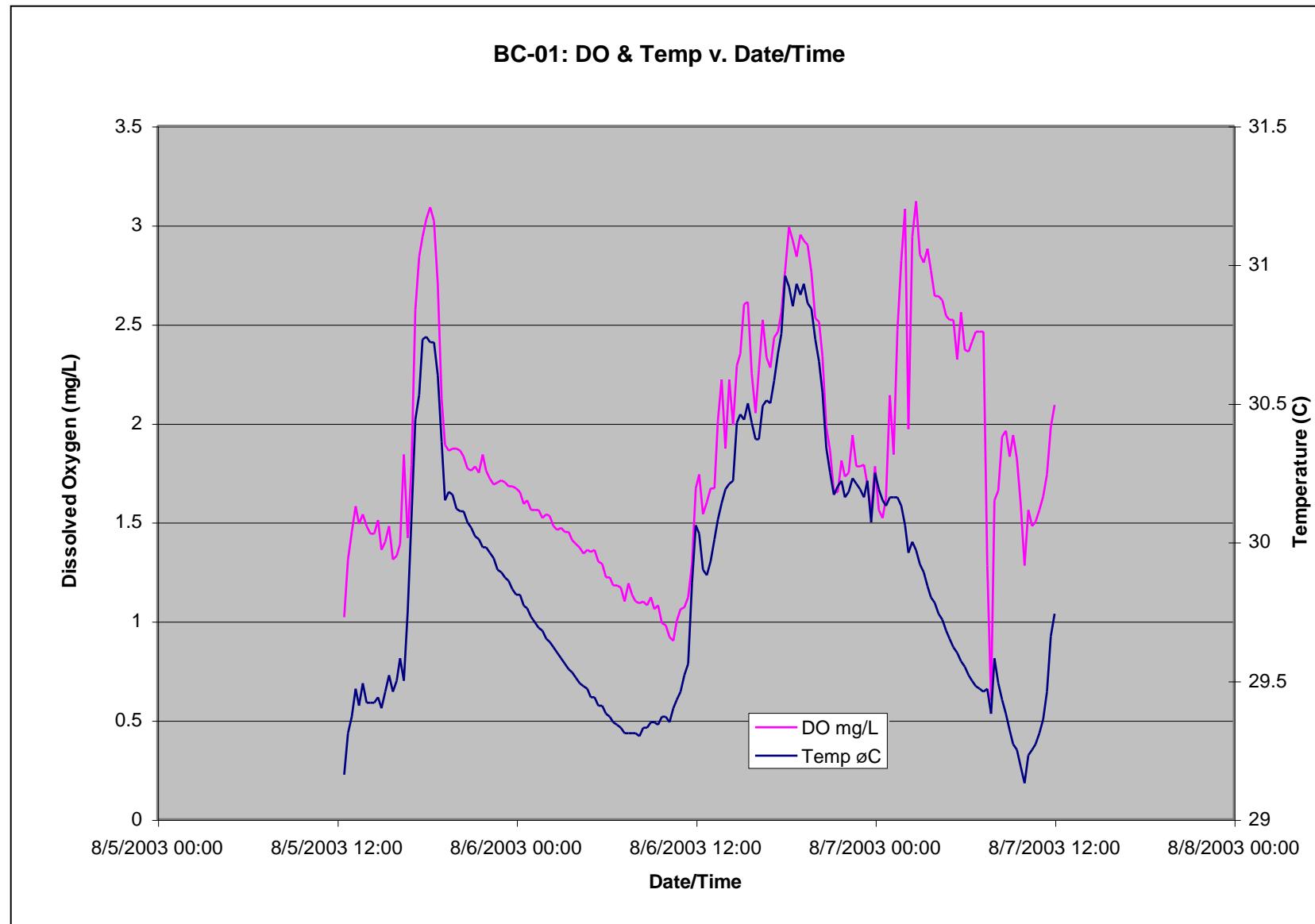
Convert Feet to Meters

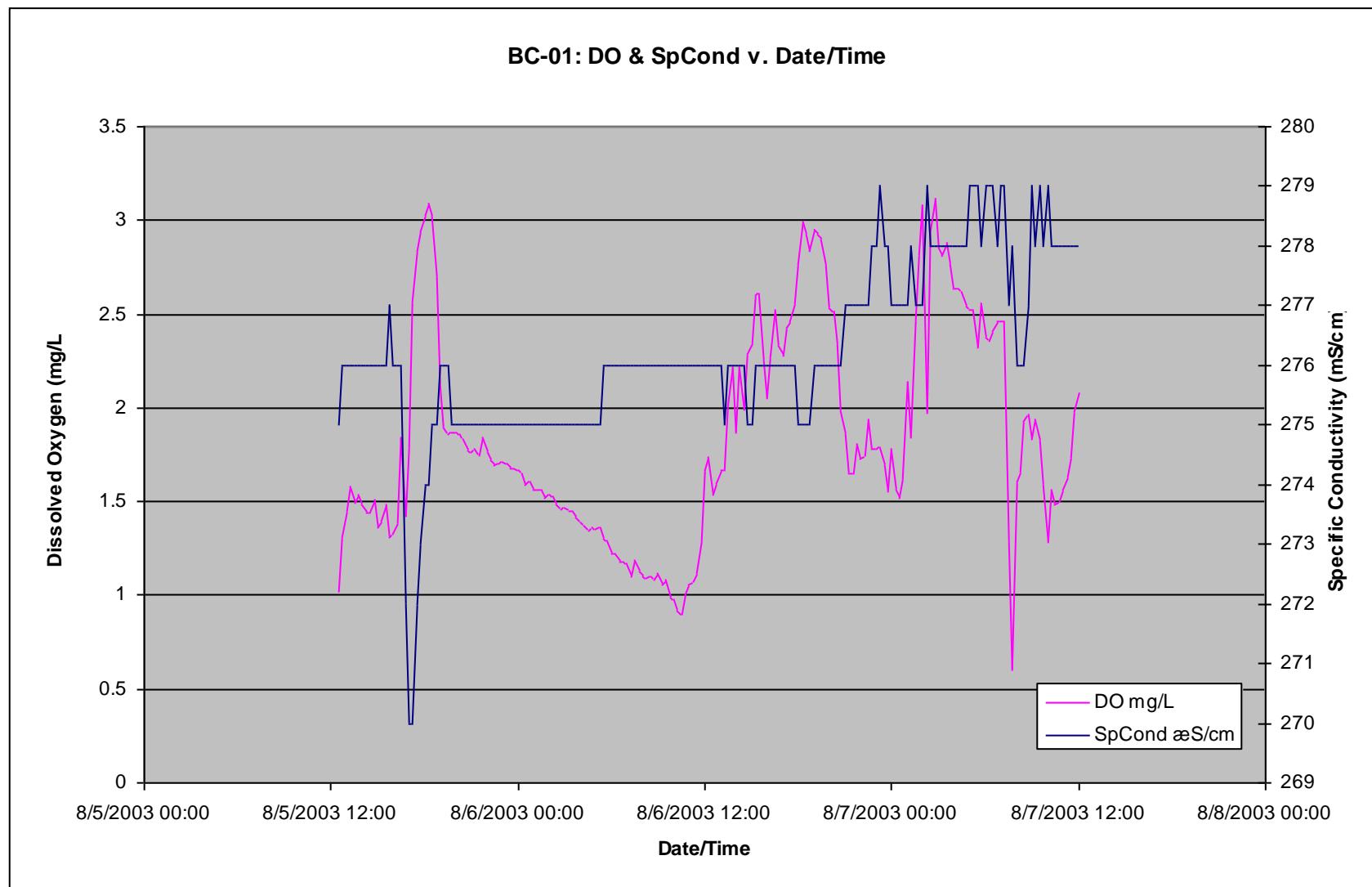
0.5 ft ≈ 0.15 m
1.0 ft ≈ 0.30 m
1.5 ft ≈ 0.45 m
2.0 ft ≈ 0.60 m
2.5 ft ≈ 0.75 m

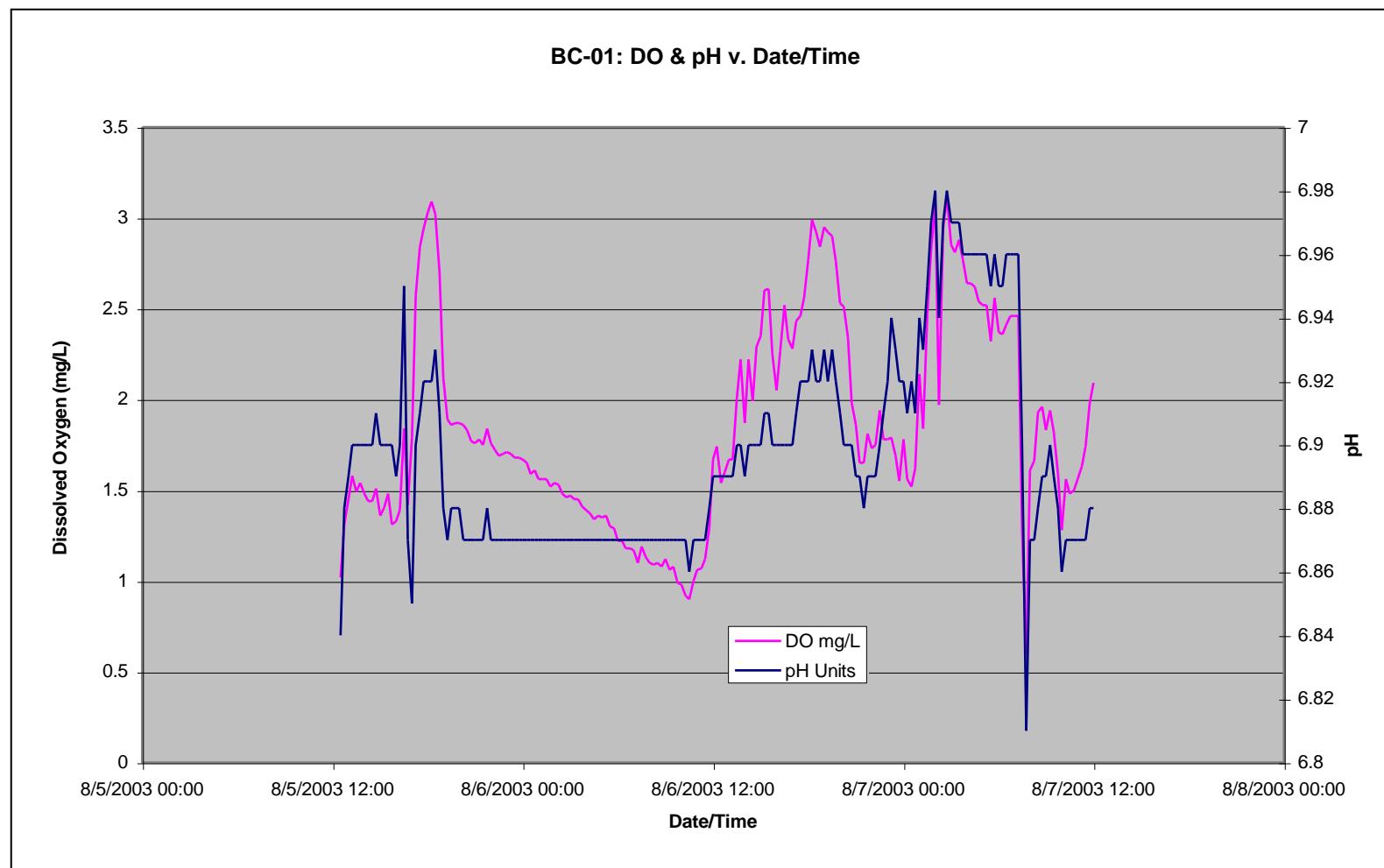
APPENDIX H4 - CONTINUOUS MONITOR DATA

Bayou Terrebonne Continuous Monitor Data										
Survey Date 8/6/03										
Site		Temp (C)	pH (units)	SpCond (umhos/cm)	Depth (m)	DO % Sat	DO (mg/L)	TDS (mg/L)	Salinity (ppt)	Chlorides (ppm or mg/L)
BC-01	Average	29.95	6.90	275.9		22.98	1.74		0.10	
	Minimum	29.30	6.90	275.0		11.70	0.90		0.10	
	Maximum	31.00	6.90	279.0		40.30	3.00		0.10	
BT-01	Average	32.05	7.37	452.4		55.72	4.00		0.20	
	Minimum	30.00	7.20	431.0		4.60	0.40		0.20	
	Maximum	34.50	7.90	478.0		156.90	11.00		0.20	
BT-05	Average	30.43	7.42	382.7		69.26	5.15		0.20	
	Minimum	28.80	7.20	376.0		18.70	1.40		0.20	
	Maximum	32.00	7.80	387.0		123.00	9.00		0.20	
BT-07	Average	30.43	7.18	370.0	0.44	38.47	2.85		0.20	
	Minimum	29.00	7.10	370.0	0.40	7.50	0.60		0.20	
	Maximum	32.10	7.30	380.0	0.49	85.40	6.20		0.20	
BT-09	Average	29.88	7.06	291.9	0.69	28.90	2.18		0.11	
	Minimum	29.10	7.00	283.0	0.65	6.60	0.50		0.10	
	Maximum	31.00	7.20	303.0	0.73	73.60	5.50		0.20	
BT-10	Average	30.45	7.19	362.9	0.62	26.95	2.01		0.21	
	Minimum	29.40	7.10	312.0	0.57	5.70	0.40		0.20	
	Maximum	31.50	7.30	792.0	0.67	53.50	3.90		0.40	
BT-12	Average	30.45	7.14	310	0.69	25.89	1.93		0.20	
	Minimum	29.80	7.10	310	0.63	15.60	1.20		0.20	
	Maximum	31.50	7.20	320	0.75	44.60	3.30		0.20	
ICWW	Average	31.46	7.25	271.0	0.68	49.80	3.67		0.10	
	Minimum	30.90	7.10	255.0	0.62	36.60	2.70		0.10	
	Maximum	32.10	7.40	279.0	0.75	57.80	4.20		0.10	

Note: Maximum, Minimum and Average values computed from continuous monitor data for the 24-hour period on 8/6/2003







MiniSonde 4a 40811

Log File Name : BC-01

Setup Date (MMDDYY) : 080403

Setup Time (HHMMSS) : 105408

Starting Date (MMDDYY) : 080403

Starting Time (HHMMSS) : 110000

Stopping Date (MMDDYY) : 122503

Stopping Time (HHMMSS) : 235959

Interval (HHMMSS) : 001500

Sensor warmup (HHMMSS) : 000200

Circltr warmup (HHMMSS) : 000200

Date MMDDYY	Time HHMMSS	Temp °C	SpCond µS/cm	Sal ppt	pH Units	DO mg/l	DO% Sat
8/5/2003	12:30:00	29.16	275	0.13	6.84	1.02	13.3
8/5/2003	12:45:00	29.31	276	0.13	6.88	1.31	17.2
8/5/2003	13:00:00	29.37	276	0.13	6.89	1.45	19
8/5/2003	13:15:00	29.47	276	0.13	6.9	1.58	20.7
8/5/2003	13:30:00	29.41	276	0.13	6.9	1.49	19.5
8/5/2003	13:45:00	29.49	276	0.13	6.9	1.54	20.2
8/5/2003	14:00:00	29.42	276	0.13	6.9	1.48	19.5
8/5/2003	14:15:00	29.42	276	0.13	6.9	1.44	18.8
8/5/2003	14:30:00	29.42	276	0.13	6.9	1.44	18.9
8/5/2003	14:45:00	29.44	276	0.13	6.91	1.51	19.8
8/5/2003	15:00:00	29.4	276	0.13	6.9	1.36	17.8
8/5/2003	15:15:00	29.46	276	0.13	6.9	1.4	18.3
8/5/2003	15:30:00	29.52	276	0.13	6.9	1.48	19.5
8/5/2003	15:45:00	29.46	277	0.13	6.9	1.31	17.2

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	16:00:00	29.5	276	0.13	6.89	1.33	17.5
8/5/2003	16:15:00	29.58	276	0.13	6.9	1.39	18.3
8/5/2003	16:30:00	29.5	276	0.13	6.95	1.84	24.1
8/5/2003	16:45:00	29.75	272	0.13	6.87	1.42	18.7
8/5/2003	17:00:00	30.09	270	0.13	6.85	1.79	23.7
8/5/2003	17:15:00	30.44	270	0.13	6.9	2.57	34.3
8/5/2003	17:30:00	30.53	272	0.13	6.91	2.84	38
8/5/2003	17:45:00	30.73	273	0.13	6.92	2.94	39.5
8/5/2003	18:00:00	30.74	274	0.13	6.92	3.03	40.6
8/5/2003	18:15:00	30.72	274	0.13	6.92	3.09	41.4
8/5/2003	18:30:00	30.72	275	0.13	6.93	3.02	40.4
8/5/2003	18:45:00	30.6	275	0.13	6.91	2.7	36.1
8/5/2003	19:00:00	30.36	276	0.13	6.88	2.12	28.2
8/5/2003	19:15:00	30.15	276	0.13	6.87	1.89	25
8/5/2003	19:30:00	30.18	276	0.13	6.88	1.86	24.7
8/5/2003	19:45:00	30.17	275	0.13	6.88	1.87	24.8
8/5/2003	20:00:00	30.12	275	0.13	6.88	1.87	24.9
8/5/2003	20:15:00	30.11	275	0.13	6.87	1.86	24.7
8/5/2003	20:30:00	30.11	275	0.13	6.87	1.83	24.3
8/5/2003	20:45:00	30.07	275	0.13	6.87	1.77	23.5
8/5/2003	21:00:00	30.05	275	0.13	6.87	1.76	23.3
8/5/2003	21:15:00	30.02	275	0.13	6.87	1.78	23.6
8/5/2003	21:30:00	30.01	275	0.13	6.87	1.75	23.2
8/5/2003	21:45:00	29.98	275	0.13	6.88	1.84	24.3
8/5/2003	22:00:00	29.98	275	0.13	6.87	1.76	23.3
8/5/2003	22:15:00	29.96	275	0.13	6.87	1.72	22.8
8/5/2003	22:30:00	29.94	275	0.13	6.87	1.69	22.3
8/5/2003	22:45:00	29.9	275	0.13	6.87	1.7	22.5
8/5/2003	23:00:00	29.89	275	0.13	6.87	1.71	22.6
8/5/2003	23:15:00	29.87	275	0.13	6.87	1.7	22.4
8/5/2003	23:30:00	29.86	275	0.13	6.87	1.68	22.2

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	23:45:00	29.83	275	0.13	6.87	1.68	22.2
8/6/2003	0:00:00	29.81	275	0.13	6.87	1.67	22.1
8/6/2003	0:15:00	29.81	275	0.13	6.87	1.65	21.8
8/6/2003	0:30:00	29.77	275	0.13	6.87	1.59	21
8/6/2003	0:45:00	29.76	275	0.13	6.87	1.61	21.2
8/6/2003	1:00:00	29.73	275	0.13	6.87	1.56	20.6
8/6/2003	1:15:00	29.71	275	0.13	6.87	1.56	20.5
8/6/2003	1:30:00	29.69	275	0.13	6.87	1.56	20.6
8/6/2003	1:45:00	29.68	275	0.13	6.87	1.52	20
8/6/2003	2:00:00	29.65	275	0.13	6.87	1.54	20.3
8/6/2003	2:15:00	29.64	275	0.13	6.87	1.53	20.1
8/6/2003	2:30:00	29.62	275	0.13	6.87	1.48	19.5
8/6/2003	2:45:00	29.6	275	0.13	6.87	1.46	19.2
8/6/2003	3:00:00	29.58	275	0.13	6.87	1.47	19.4
8/6/2003	3:15:00	29.56	275	0.13	6.87	1.45	19.1
8/6/2003	3:30:00	29.54	275	0.13	6.87	1.45	19.1
8/6/2003	3:45:00	29.53	275	0.13	6.87	1.41	18.5
8/6/2003	4:00:00	29.51	275	0.13	6.87	1.39	18.2
8/6/2003	4:15:00	29.49	275	0.13	6.87	1.37	18
8/6/2003	4:30:00	29.48	275	0.13	6.87	1.34	17.6
8/6/2003	4:45:00	29.47	275	0.13	6.87	1.36	17.9
8/6/2003	5:00:00	29.44	275	0.13	6.87	1.35	17.7
8/6/2003	5:15:00	29.44	275	0.13	6.87	1.36	17.8
8/6/2003	5:30:00	29.41	276	0.13	6.87	1.3	17.1
8/6/2003	5:45:00	29.41	276	0.13	6.87	1.29	16.9
8/6/2003	6:00:00	29.38	276	0.13	6.87	1.22	16
8/6/2003	6:15:00	29.37	276	0.13	6.87	1.22	15.9
8/6/2003	6:30:00	29.35	276	0.13	6.87	1.18	15.5
8/6/2003	6:45:00	29.34	276	0.13	6.87	1.18	15.5
8/6/2003	7:00:00	29.33	276	0.13	6.87	1.17	15.3
8/6/2003	7:15:00	29.31	276	0.13	6.87	1.1	14.5

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	7:30:00	29.31	276	0.13	6.87	1.19	15.5
8/6/2003	7:45:00	29.31	276	0.13	6.87	1.13	14.7
8/6/2003	8:00:00	29.31	276	0.13	6.87	1.1	14.5
8/6/2003	8:15:00	29.3	276	0.13	6.87	1.09	14.2
8/6/2003	8:30:00	29.33	276	0.13	6.87	1.1	14.4
8/6/2003	8:45:00	29.33	276	0.13	6.87	1.08	14.2
8/6/2003	9:00:00	29.35	276	0.13	6.87	1.12	14.6
8/6/2003	9:15:00	29.35	276	0.13	6.87	1.06	13.9
8/6/2003	9:30:00	29.34	276	0.13	6.87	1.08	14.2
8/6/2003	9:45:00	29.37	276	0.13	6.87	0.99	13
8/6/2003	10:00:00	29.37	276	0.13	6.87	0.98	12.9
8/6/2003	10:15:00	29.35	276	0.13	6.87	0.92	12.1
8/6/2003	10:30:00	29.4	276	0.13	6.86	0.9	11.7
8/6/2003	10:45:00	29.43	276	0.13	6.87	1	13.1
8/6/2003	11:00:00	29.46	276	0.13	6.87	1.06	13.9
8/6/2003	11:15:00	29.52	276	0.13	6.87	1.07	14.1
8/6/2003	11:30:00	29.56	276	0.13	6.87	1.12	14.7
8/6/2003	11:45:00	29.85	276	0.13	6.88	1.29	17.1
8/6/2003	12:00:00	30.06	276	0.13	6.89	1.67	22.2
8/6/2003	12:15:00	30.03	276	0.13	6.89	1.74	23.1
8/6/2003	12:30:00	29.9	276	0.13	6.89	1.54	20.3
8/6/2003	12:45:00	29.88	276	0.13	6.89	1.6	21.2
8/6/2003	13:00:00	29.93	276	0.13	6.89	1.67	22.2
8/6/2003	13:15:00	30.01	275	0.13	6.89	1.67	22.2
8/6/2003	13:30:00	30.08	276	0.13	6.9	2.01	26.7
8/6/2003	13:45:00	30.14	276	0.13	6.9	2.22	29.4
8/6/2003	14:00:00	30.19	276	0.13	6.89	1.87	24.9
8/6/2003	14:15:00	30.21	276	0.13	6.9	2.22	29.5
8/6/2003	14:30:00	30.22	276	0.13	6.9	1.99	26.4
8/6/2003	14:45:00	30.43	275	0.13	6.9	2.29	30.6
8/6/2003	15:00:00	30.46	275	0.13	6.9	2.35	31.4

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	15:15:00	30.44	276	0.13	6.91	2.6	34.7
8/6/2003	15:30:00	30.5	276	0.13	6.91	2.61	34.9
8/6/2003	15:45:00	30.43	276	0.13	6.9	2.25	30
8/6/2003	16:00:00	30.37	276	0.13	6.9	2.05	27.3
8/6/2003	16:15:00	30.37	276	0.13	6.9	2.27	30.2
8/6/2003	16:30:00	30.49	276	0.13	6.9	2.52	33.6
8/6/2003	16:45:00	30.51	276	0.13	6.9	2.33	31.1
8/6/2003	17:00:00	30.5	276	0.13	6.9	2.28	30.5
8/6/2003	17:15:00	30.58	276	0.13	6.91	2.43	32.6
8/6/2003	17:30:00	30.68	276	0.13	6.92	2.46	32.9
8/6/2003	17:45:00	30.75	276	0.13	6.92	2.56	34.4
8/6/2003	18:00:00	30.96	275	0.13	6.92	2.77	37.3
8/6/2003	18:15:00	30.92	275	0.13	6.93	2.99	40.3
8/6/2003	18:30:00	30.85	275	0.13	6.92	2.92	39.2
8/6/2003	18:45:00	30.93	275	0.13	6.92	2.84	38.2
8/6/2003	19:00:00	30.89	276	0.13	6.93	2.95	39.6
8/6/2003	19:15:00	30.93	276	0.13	6.92	2.92	39.3
8/6/2003	19:30:00	30.86	276	0.13	6.93	2.9	39
8/6/2003	19:45:00	30.84	276	0.13	6.92	2.76	37
8/6/2003	20:00:00	30.73	276	0.13	6.91	2.53	33.9
8/6/2003	20:15:00	30.65	276	0.13	6.9	2.51	33.6
8/6/2003	20:30:00	30.54	276	0.13	6.9	2.34	31.2
8/6/2003	20:45:00	30.34	276	0.13	6.9	1.98	26.4
8/6/2003	21:00:00	30.25	277	0.13	6.89	1.86	24.8
8/6/2003	21:15:00	30.17	277	0.13	6.89	1.65	21.9
8/6/2003	21:30:00	30.2	277	0.13	6.88	1.65	21.9
8/6/2003	21:45:00	30.22	277	0.13	6.89	1.81	24.1
8/6/2003	22:00:00	30.16	277	0.13	6.89	1.73	22.9
8/6/2003	22:15:00	30.18	277	0.13	6.89	1.75	23.3
8/6/2003	22:30:00	30.23	277	0.13	6.9	1.94	25.8
8/6/2003	22:45:00	30.21	278	0.13	6.91	1.78	23.6

Bayou Terrebonne Watershed TMDL

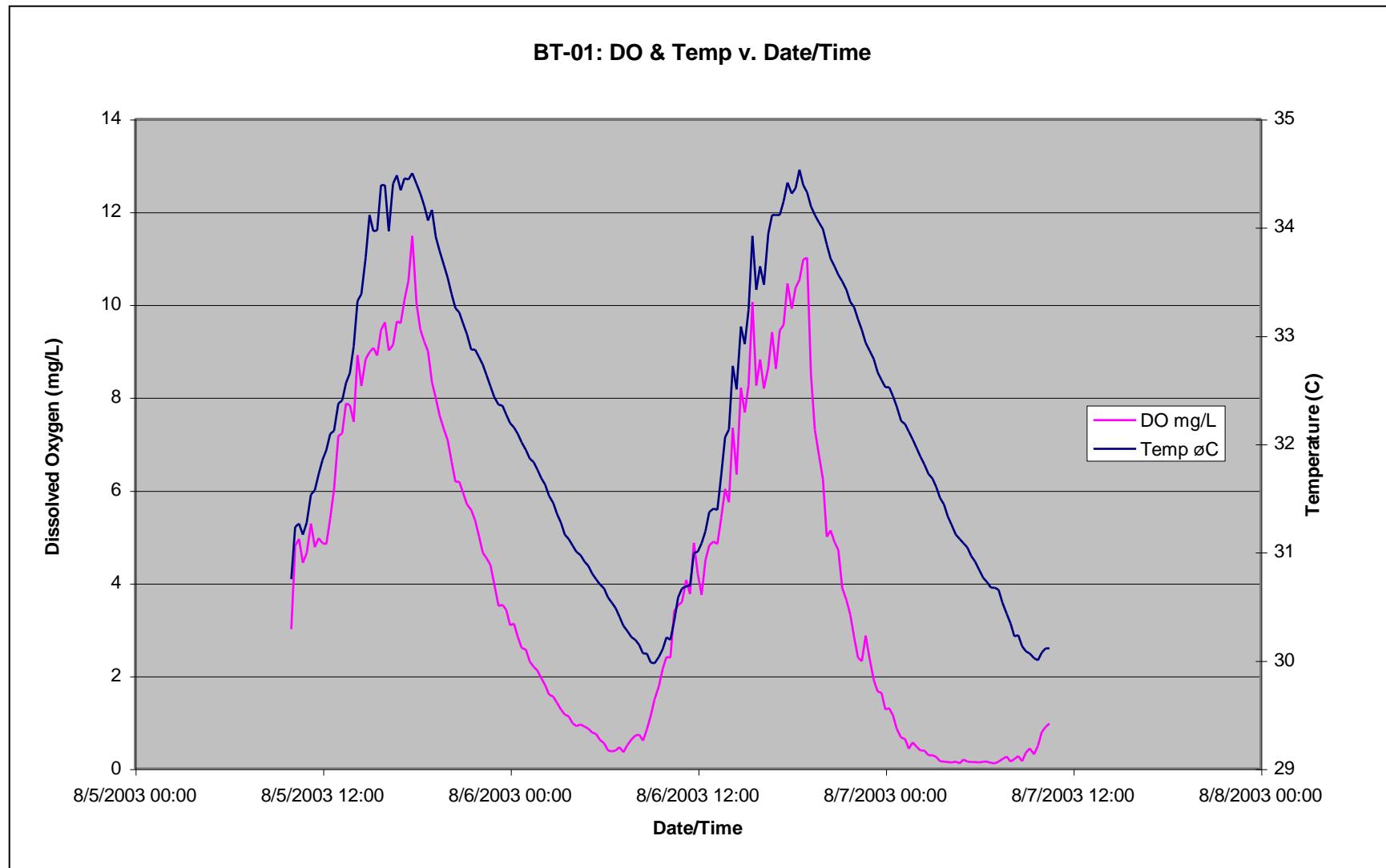
Subsegment 120301

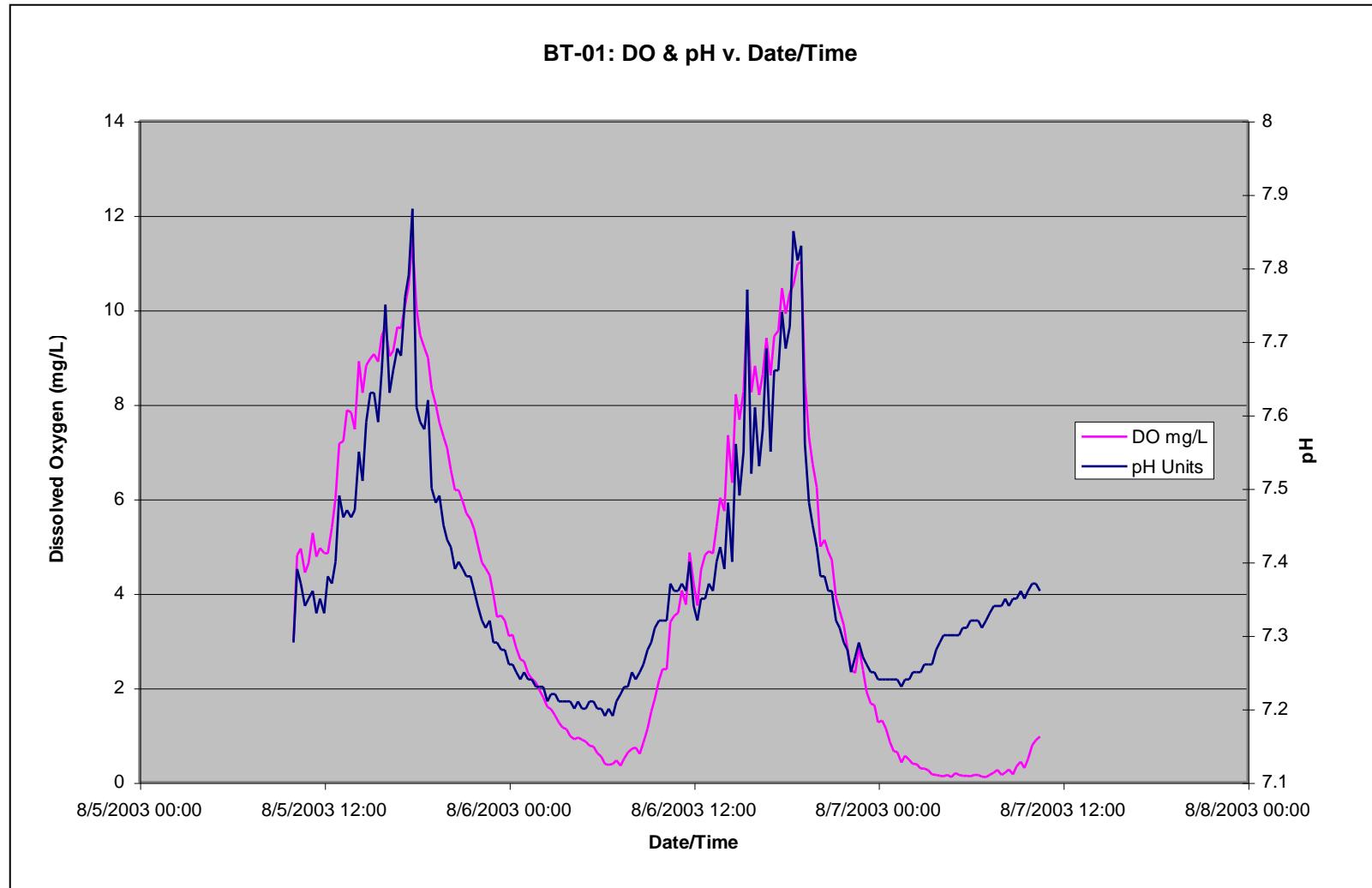
Originated: March 19, 2008

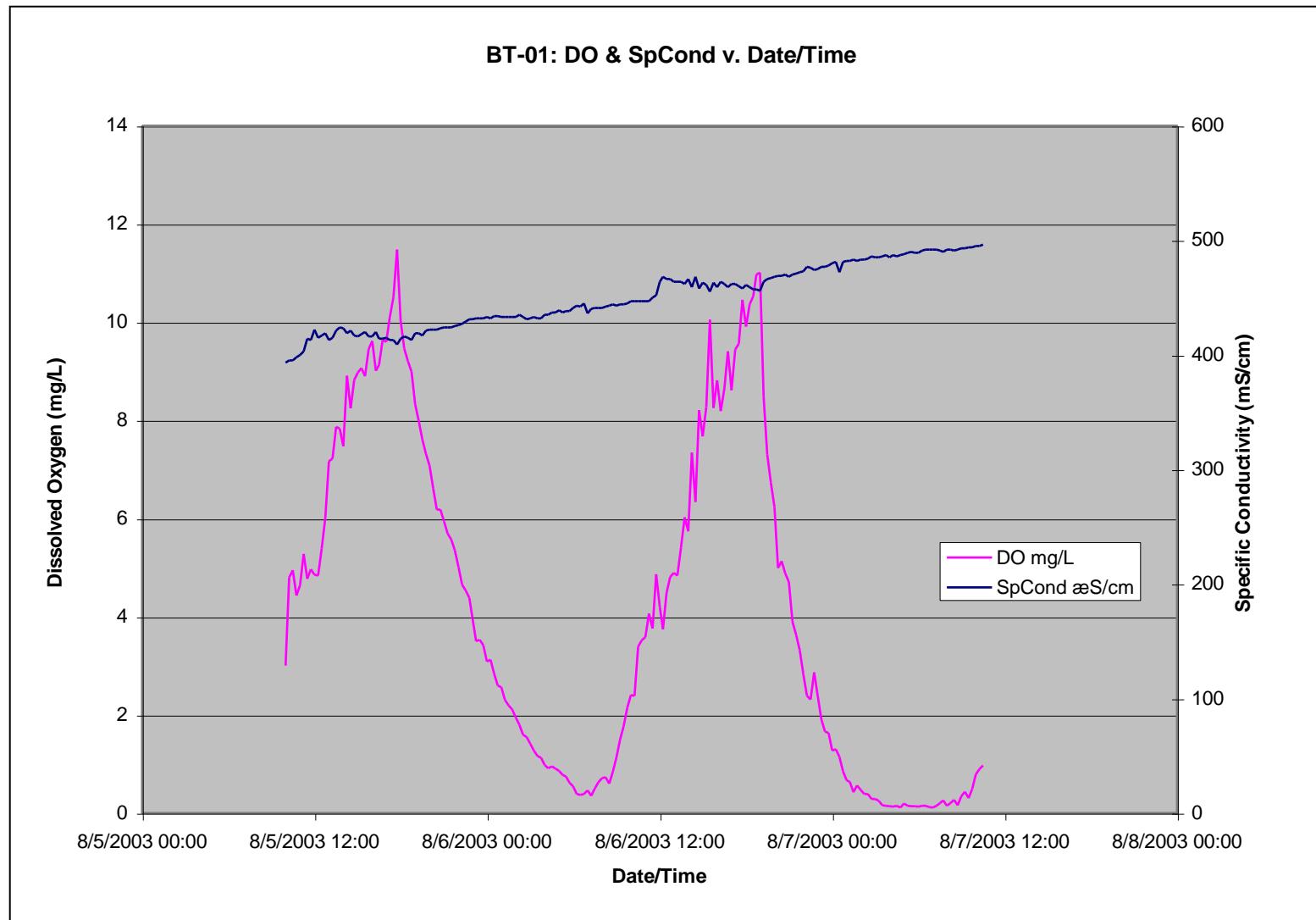
8/6/2003	23:00:00	30.19	278	0.13	6.92	1.78	23.6
8/6/2003	23:15:00	30.16	279	0.13	6.94	1.79	23.7
8/6/2003	23:30:00	30.22	278	0.13	6.93	1.69	22.4
8/6/2003	23:45:00	30.07	278	0.13	6.92	1.55	20.6
8/7/2003	0:00:00	30.25	277	0.13	6.92	1.78	23.7
8/7/2003	0:15:00	30.19	277	0.13	6.91	1.56	20.8
8/7/2003	0:30:00	30.15	277	0.13	6.92	1.52	20.1
8/7/2003	0:45:00	30.13	277	0.13	6.91	1.62	21.5
8/7/2003	1:00:00	30.16	277	0.13	6.94	2.14	28.5
8/7/2003	1:15:00	30.16	278	0.13	6.93	1.84	24.4
8/7/2003	1:30:00	30.16	277	0.13	6.95	2.47	32.8
8/7/2003	1:45:00	30.13	277	0.13	6.97	2.82	37.4
8/7/2003	2:00:00	30.06	277	0.13	6.98	3.08	40.8
8/7/2003	2:15:00	29.96	279	0.13	6.94	1.97	26.1
8/7/2003	2:30:00	30	278	0.13	6.97	2.94	39
8/7/2003	2:45:00	29.97	278	0.13	6.98	3.12	41.3
8/7/2003	3:00:00	29.92	278	0.13	6.97	2.85	37.7
8/7/2003	3:15:00	29.89	278	0.13	6.97	2.81	37.1
8/7/2003	3:30:00	29.84	278	0.13	6.97	2.88	38.1
8/7/2003	3:45:00	29.8	278	0.13	6.96	2.77	36.6
8/7/2003	4:00:00	29.78	278	0.13	6.96	2.64	34.8
8/7/2003	4:15:00	29.74	278	0.13	6.96	2.64	34.9
8/7/2003	4:30:00	29.72	278	0.13	6.96	2.62	34.5
8/7/2003	4:45:00	29.68	278	0.13	6.96	2.54	33.5
8/7/2003	5:00:00	29.65	279	0.13	6.96	2.52	33.1
8/7/2003	5:15:00	29.62	279	0.13	6.96	2.52	33.2
8/7/2003	5:30:00	29.6	279	0.13	6.95	2.32	30.6
8/7/2003	5:45:00	29.57	278	0.13	6.96	2.56	33.6
8/7/2003	6:00:00	29.55	279	0.13	6.95	2.37	31.2
8/7/2003	6:15:00	29.52	279	0.13	6.95	2.36	31
8/7/2003	6:30:00	29.5	279	0.13	6.96	2.41	31.6

8/7/2003	6:45:00	29.48	278	0.13	6.96	2.46	32.2
8/7/2003	7:00:00	29.47	279	0.13	6.96	2.46	32.2
8/7/2003	7:15:00	29.46	279	0.13	6.96	2.46	32.2
8/7/2003	7:30:00	29.47	277	0.13	6.9	1.28	16.7
8/7/2003	7:45:00	29.38	278	0.13	6.81	0.6	7.8
8/7/2003	8:00:00	29.58	276	0.13	6.87	1.61	21.2
8/7/2003	8:15:00	29.49	276	0.13	6.87	1.66	21.7
8/7/2003	8:30:00	29.43	276	0.13	6.88	1.93	25.3
8/7/2003	8:45:00	29.38	277	0.13	6.89	1.96	25.7
8/7/2003	9:00:00	29.32	279	0.13	6.89	1.83	24
8/7/2003	9:15:00	29.27	278	0.13	6.9	1.94	25.3
8/7/2003	9:30:00	29.25	279	0.13	6.89	1.82	23.8
8/7/2003	9:45:00	29.19	278	0.13	6.88	1.59	20.8
8/7/2003	10:00:00	29.13	279	0.13	6.86	1.28	16.7
8/7/2003	10:15:00	29.23	278	0.13	6.87	1.56	20.3
8/7/2003	10:30:00	29.25	278	0.13	6.87	1.48	19.4
8/7/2003	10:45:00	29.27	278	0.13	6.87	1.5	19.6
8/7/2003	11:00:00	29.31	278	0.13	6.87	1.56	20.4
8/7/2003	11:15:00	29.36	278	0.13	6.87	1.63	21.4
8/7/2003	11:30:00	29.46	278	0.13	6.87	1.74	22.8
8/7/2003	11:45:00	29.66	278	0.13	6.88	1.98	26.1
8/7/2003	12:00:00	29.74	278	0.13	6.88	2.09	27.5

Recovery finished at 080803 123445







MiniSonde 4a 40803

Log File Name : BT-01

Setup Date (MMDDYY) : 080403

Setup Time (HHMMSS) : 105330

Starting Date (MMDDYY) : 080403

Starting Time (HHMMSS) : 110000

Stopping Date (MMDDYY) : 122503

Stopping Time (HHMMSS) : 235959

Interval (HHMMSS) : 001500

Sensor warmup (HHMMSS) : 000200

Circltr warmup (HHMMSS) : 000200

Date MMDDYY	Time HHMMSS	Temp øC	SpCond æS/cm	Sal ppt	pH Units	DO mg/l	DO% Sat
8/5/2003	10:00:00	30.75	393	0.2	7.29	3	40.2
8/5/2003	10:15:00	31.23	395	0.2	7.39	4.8	65
8/5/2003	10:30:00	31.26	395	0.2	7.37	4.95	67
8/5/2003	10:45:00	31.16	398	0.2	7.34	4.43	59.9
8/5/2003	11:00:00	31.27	400	0.2	7.35	4.64	62.9
8/5/2003	11:15:00	31.53	403	0.2	7.36	5.28	71.8
8/5/2003	11:30:00	31.57	414	0.21	7.33	4.77	64.9
8/5/2003	11:45:00	31.72	413	0.21	7.35	4.96	67.7
8/5/2003	12:00:00	31.85	422	0.21	7.33	4.85	66.4
8/5/2003	12:15:00	31.94	415	0.21	7.38	4.84	66.2
8/5/2003	12:30:00	32.09	417	0.21	7.37	5.39	74
8/5/2003	12:45:00	32.12	419	0.21	7.4	6.01	82.6
8/5/2003	13:00:00	32.37	413	0.21	7.49	7.17	99
8/5/2003	13:15:00	32.4	415	0.21	7.46	7.22	99.6
8/5/2003	13:30:00	32.56	421	0.21	7.47	7.87	109

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	13:45:00	32.65	424	0.21	7.46	7.83	108.6
8/5/2003	14:00:00	32.9	423	0.21	7.47	7.47	104
8/5/2003	14:15:00	33.32	419	0.21	7.55	8.91	124.9
8/5/2003	14:30:00	33.38	421	0.21	7.51	8.24	115.6
8/5/2003	14:45:00	33.72	417	0.21	7.59	8.82	124.4
8/5/2003	15:00:00	34.11	416	0.21	7.63	8.97	127.5
8/5/2003	15:15:00	33.96	418	0.21	7.63	9.06	128.3
8/5/2003	15:30:00	33.97	420	0.21	7.59	8.9	126.2
8/5/2003	15:45:00	34.39	416	0.21	7.66	9.45	134.8
8/5/2003	16:00:00	34.39	416	0.21	7.75	9.62	137.2
8/5/2003	16:15:00	33.96	420	0.21	7.63	9.01	127.7
8/5/2003	16:30:00	34.4	414	0.21	7.66	9.13	130.3
8/5/2003	16:45:00	34.48	414	0.21	7.69	9.63	137.5
8/5/2003	17:00:00	34.34	415	0.21	7.68	9.6	136.9
8/5/2003	17:15:00	34.45	413	0.21	7.76	10.1	144.3
8/5/2003	17:30:00	34.44	413	0.21	7.79	10.51	150.1
8/5/2003	17:45:00	34.5	409	0.2	7.88	11.48	164.1
8/5/2003	18:00:00	34.4	414	0.21	7.61	10.02	142.9
8/5/2003	18:15:00	34.31	416	0.21	7.59	9.46	134.8
8/5/2003	18:30:00	34.2	415	0.21	7.58	9.2	130.8
8/5/2003	18:45:00	34.06	413	0.21	7.62	8.99	127.5
8/5/2003	19:00:00	34.16	419	0.21	7.5	8.33	118.4
8/5/2003	19:15:00	33.91	419	0.21	7.48	7.99	113.1
8/5/2003	19:30:00	33.78	417	0.21	7.49	7.61	107.5
8/5/2003	19:45:00	33.65	421	0.21	7.45	7.31	103
8/5/2003	20:00:00	33.53	422	0.21	7.43	7.07	99.4
8/5/2003	20:15:00	33.38	422	0.21	7.42	6.61	92.7
8/5/2003	20:30:00	33.25	422	0.21	7.39	6.18	86.5
8/5/2003	20:45:00	33.21	423	0.21	7.4	6.18	86.5
8/5/2003	21:00:00	33.11	424	0.21	7.39	5.94	82.9
8/5/2003	21:15:00	33.01	424	0.21	7.38	5.69	79.3

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	21:30:00	32.87	424	0.21	7.38	5.57	77.5
8/5/2003	21:45:00	32.87	425	0.21	7.36	5.35	74.4
8/5/2003	22:00:00	32.8	426	0.21	7.34	5.01	69.7
8/5/2003	22:15:00	32.73	427	0.21	7.32	4.65	64.6
8/5/2003	22:30:00	32.63	429	0.21	7.31	4.53	62.8
8/5/2003	22:45:00	32.53	431	0.22	7.32	4.38	60.6
8/5/2003	23:00:00	32.43	431	0.22	7.29	3.97	54.9
8/5/2003	23:15:00	32.36	432	0.22	7.29	3.5	48.2
8/5/2003	23:30:00	32.35	432	0.22	7.28	3.53	48.7
8/5/2003	23:45:00	32.27	432	0.22	7.28	3.42	47.1
8/6/2003	0:00:00	32.19	433	0.22	7.26	3.09	42.5
8/6/2003	0:15:00	32.15	432	0.22	7.26	3.12	42.9
8/6/2003	0:30:00	32.09	434	0.22	7.25	2.84	38.9
8/6/2003	0:45:00	32.01	434	0.22	7.24	2.6	35.6
8/6/2003	1:00:00	31.94	433	0.22	7.25	2.56	35.1
8/6/2003	1:15:00	31.86	433	0.22	7.24	2.3	31.5
8/6/2003	1:30:00	31.83	433	0.22	7.24	2.19	29.9
8/6/2003	1:45:00	31.76	433	0.22	7.23	2.11	28.8
8/6/2003	2:00:00	31.68	433	0.22	7.23	1.94	26.4
8/6/2003	2:15:00	31.62	435	0.22	7.23	1.8	24.5
8/6/2003	2:30:00	31.52	433	0.22	7.21	1.59	21.7
8/6/2003	2:45:00	31.45	431	0.22	7.22	1.55	21.1
8/6/2003	3:00:00	31.35	432	0.22	7.22	1.41	19.1
8/6/2003	3:15:00	31.27	433	0.22	7.21	1.27	17.2
8/6/2003	3:30:00	31.16	432	0.22	7.21	1.16	15.6
8/6/2003	3:45:00	31.12	432	0.22	7.21	1.12	15.2
8/6/2003	4:00:00	31.06	435	0.22	7.21	0.98	13.2
8/6/2003	4:15:00	31	435	0.22	7.2	0.91	12.3
8/6/2003	4:30:00	30.97	437	0.22	7.21	0.95	12.9
8/6/2003	4:45:00	30.91	437	0.22	7.2	0.9	12.1
8/6/2003	5:00:00	30.87	439	0.22	7.2	0.86	11.5

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	5:15:00	30.8	437	0.22	7.21	0.77	10.4
8/6/2003	5:30:00	30.75	438	0.22	7.21	0.75	10.1
8/6/2003	5:45:00	30.7	438	0.22	7.2	0.62	8.3
8/6/2003	6:00:00	30.66	441	0.22	7.2	0.54	7.2
8/6/2003	6:15:00	30.58	443	0.22	7.19	0.39	5.2
8/6/2003	6:30:00	30.53	442	0.22	7.2	0.37	4.9
8/6/2003	6:45:00	30.48	445	0.22	7.19	0.39	5.2
8/6/2003	7:00:00	30.4	436	0.22	7.21	0.46	6.1
8/6/2003	7:15:00	30.32	440	0.22	7.22	0.35	4.6
8/6/2003	7:30:00	30.27	441	0.22	7.23	0.5	6.7
8/6/2003	7:45:00	30.21	441	0.22	7.23	0.63	8.3
8/6/2003	8:00:00	30.19	441	0.22	7.25	0.71	9.4
8/6/2003	8:15:00	30.14	442	0.22	7.24	0.73	9.7
8/6/2003	8:30:00	30.06	443	0.22	7.25	0.6	7.9
8/6/2003	8:45:00	30.06	444	0.22	7.26	0.84	11.1
8/6/2003	9:00:00	29.98	443	0.22	7.28	1.13	14.9
8/6/2003	9:15:00	29.97	444	0.22	7.29	1.49	19.7
8/6/2003	9:30:00	30.03	444	0.22	7.31	1.77	23.5
8/6/2003	9:45:00	30.1	445	0.22	7.32	2.15	28.5
8/6/2003	10:00:00	30.21	447	0.22	7.32	2.4	31.9
8/6/2003	10:15:00	30.19	447	0.22	7.32	2.39	31.7
8/6/2003	10:30:00	30.36	447	0.22	7.37	3.39	45.2
8/6/2003	10:45:00	30.58	447	0.22	7.36	3.52	47.1
8/6/2003	11:00:00	30.66	447	0.22	7.36	3.58	47.9
8/6/2003	11:15:00	30.68	447	0.22	7.37	4.06	54.4
8/6/2003	11:30:00	30.69	450	0.23	7.36	3.76	50.4
8/6/2003	11:45:00	30.99	452	0.23	7.4	4.86	65.5
8/6/2003	12:00:00	31	464	0.23	7.34	4.2	56.6
8/6/2003	12:15:00	31.08	468	0.24	7.32	3.74	50.5
8/6/2003	12:30:00	31.19	466	0.23	7.35	4.49	60.8
8/6/2003	12:45:00	31.37	466	0.23	7.35	4.81	65.3

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	13:00:00	31.4	464	0.23	7.37	4.89	66.4
8/6/2003	13:15:00	31.39	464	0.23	7.36	4.84	65.8
8/6/2003	13:30:00	31.71	464	0.23	7.4	5.41	73.8
8/6/2003	13:45:00	32.06	462	0.23	7.42	6.02	82.6
8/6/2003	14:00:00	32.13	466	0.23	7.39	5.74	78.8
8/6/2003	14:15:00	32.72	459	0.23	7.48	7.34	101.9
8/6/2003	14:30:00	32.5	468	0.24	7.4	6.34	87.6
8/6/2003	14:45:00	33.08	458	0.23	7.56	8.21	114.7
8/6/2003	15:00:00	32.92	463	0.23	7.49	7.67	106.9
8/6/2003	15:15:00	33.24	461	0.23	7.55	8.27	115.9
8/6/2003	15:30:00	33.92	455	0.23	7.77	10.05	142.3
8/6/2003	15:45:00	33.42	463	0.23	7.52	8.25	115.8
8/6/2003	16:00:00	33.64	459	0.23	7.61	8.81	124.2
8/6/2003	16:15:00	33.47	464	0.23	7.53	8.19	115.1
8/6/2003	16:30:00	33.94	462	0.23	7.58	8.64	122.4
8/6/2003	16:45:00	34.11	459	0.23	7.69	9.4	133.6
8/6/2003	17:00:00	34.11	462	0.23	7.55	8.61	122.3
8/6/2003	17:15:00	34.11	462	0.23	7.66	9.44	134.1
8/6/2003	17:30:00	34.24	460	0.23	7.66	9.56	136.1
8/6/2003	17:45:00	34.41	458	0.23	7.74	10.45	149.2
8/6/2003	18:00:00	34.31	461	0.23	7.69	9.91	141.2
8/6/2003	18:15:00	34.36	459	0.23	7.72	10.36	147.8
8/6/2003	18:30:00	34.53	457	0.23	7.85	10.53	150.6
8/6/2003	18:45:00	34.39	457	0.23	7.81	10.97	156.5
8/6/2003	19:00:00	34.32	456	0.23	7.83	11.01	156.9
8/6/2003	19:15:00	34.19	464	0.23	7.56	8.48	120.6
8/6/2003	19:30:00	34.11	466	0.23	7.48	7.3	103.7
8/6/2003	19:45:00	34.04	467	0.24	7.45	6.73	95.5
8/6/2003	20:00:00	33.98	468	0.24	7.42	6.24	88.5
8/6/2003	20:15:00	33.84	469	0.24	7.38	4.99	70.6
8/6/2003	20:30:00	33.71	469	0.24	7.38	5.13	72.4

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	20:45:00	33.64	470	0.24	7.36	4.88	68.8
8/6/2003	21:00:00	33.56	468	0.24	7.36	4.71	66.4
8/6/2003	21:15:00	33.5	470	0.24	7.32	3.9	54.8
8/6/2003	21:30:00	33.42	471	0.24	7.31	3.63	50.9
8/6/2003	21:45:00	33.31	472	0.24	7.29	3.32	46.6
8/6/2003	22:00:00	33.26	473	0.24	7.28	2.83	39.7
8/6/2003	22:15:00	33.15	477	0.24	7.25	2.39	33.4
8/6/2003	22:30:00	33.05	476	0.24	7.27	2.31	32.3
8/6/2003	22:45:00	32.93	474	0.24	7.29	2.86	39.8
8/6/2003	23:00:00	32.86	475	0.24	7.27	2.38	33.2
8/6/2003	23:15:00	32.78	477	0.24	7.26	1.91	26.6
8/6/2003	23:30:00	32.66	477	0.24	7.25	1.66	23
8/6/2003	23:45:00	32.59	478	0.24	7.25	1.63	22.6
8/7/2003	0:00:00	32.52	480	0.24	7.24	1.27	17.6
8/7/2003	0:15:00	32.52	481	0.24	7.24	1.3	18
8/7/2003	0:30:00	32.44	472	0.24	7.24	1.14	15.7
8/7/2003	0:45:00	32.34	481	0.24	7.24	0.85	11.7
8/7/2003	1:00:00	32.21	482	0.24	7.24	0.66	9
8/7/2003	1:15:00	32.18	482	0.24	7.24	0.64	8.8
8/7/2003	1:30:00	32.11	483	0.24	7.23	0.42	5.8
8/7/2003	1:45:00	32.04	482	0.24	7.24	0.56	7.7
8/7/2003	2:00:00	31.96	483	0.24	7.24	0.47	6.5
8/7/2003	2:15:00	31.88	483	0.24	7.25	0.39	5.4
8/7/2003	2:30:00	31.81	484	0.24	7.25	0.39	5.3
8/7/2003	2:45:00	31.72	486	0.25	7.25	0.29	4
8/7/2003	3:00:00	31.68	485	0.24	7.26	0.29	4
8/7/2003	3:15:00	31.6	485	0.24	7.26	0.25	3.4
8/7/2003	3:30:00	31.5	486	0.25	7.26	0.16	2.2
8/7/2003	3:45:00	31.44	487	0.25	7.28	0.15	2
8/7/2003	4:00:00	31.33	485	0.25	7.29	0.14	1.9
8/7/2003	4:15:00	31.25	487	0.25	7.3	0.13	1.7

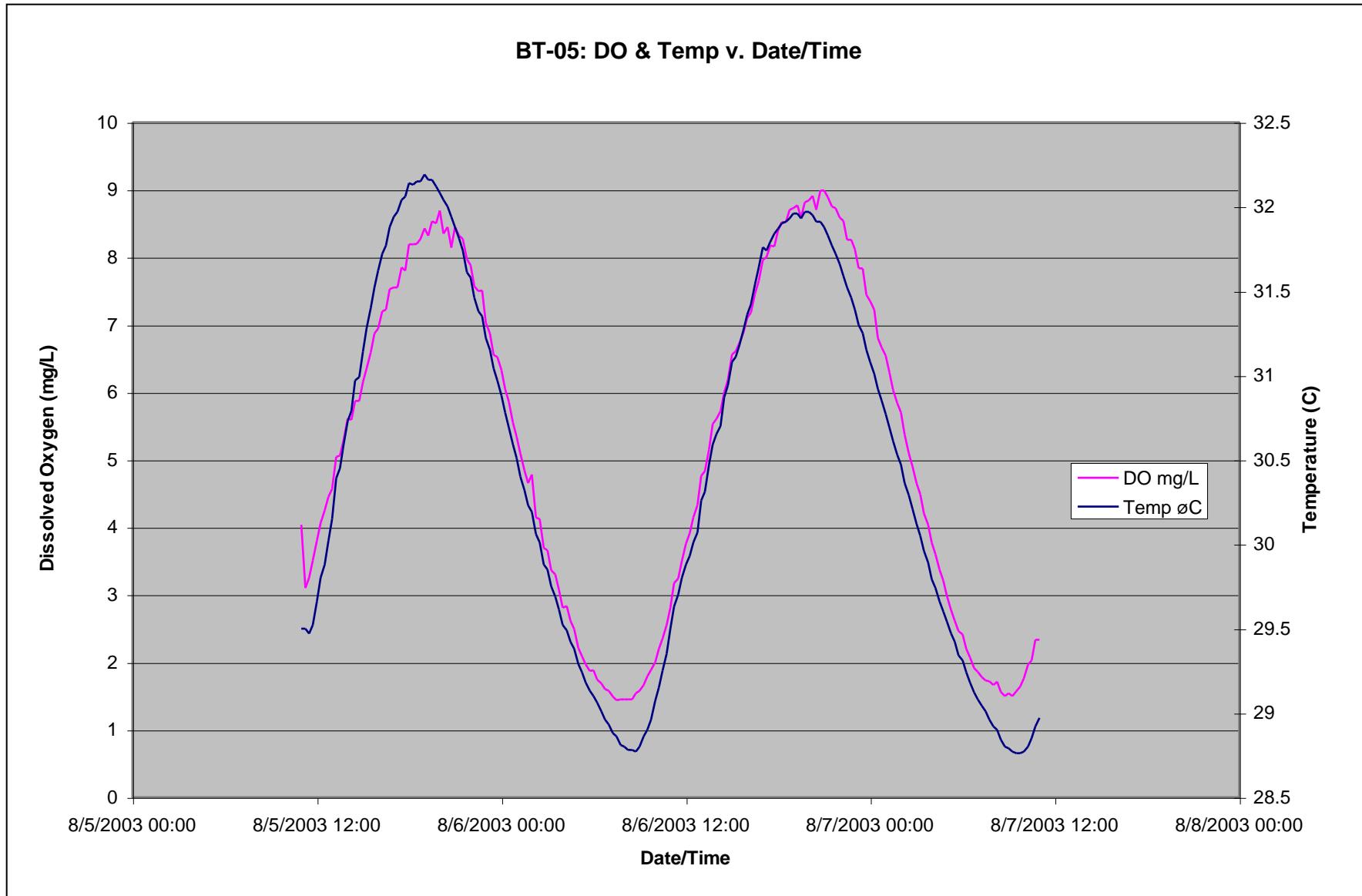
Bayou Terrebonne Watershed TMDL

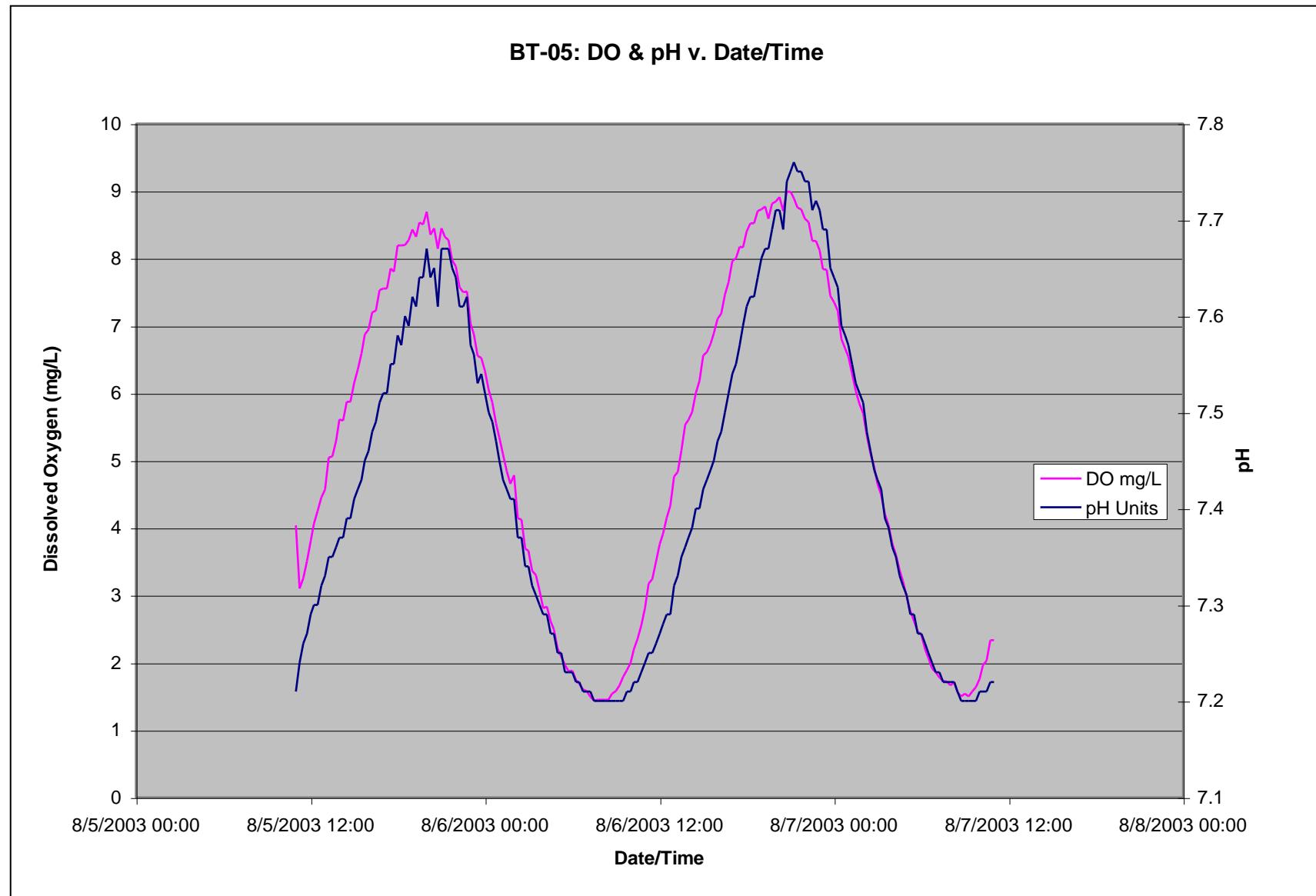
Subsegment 120301

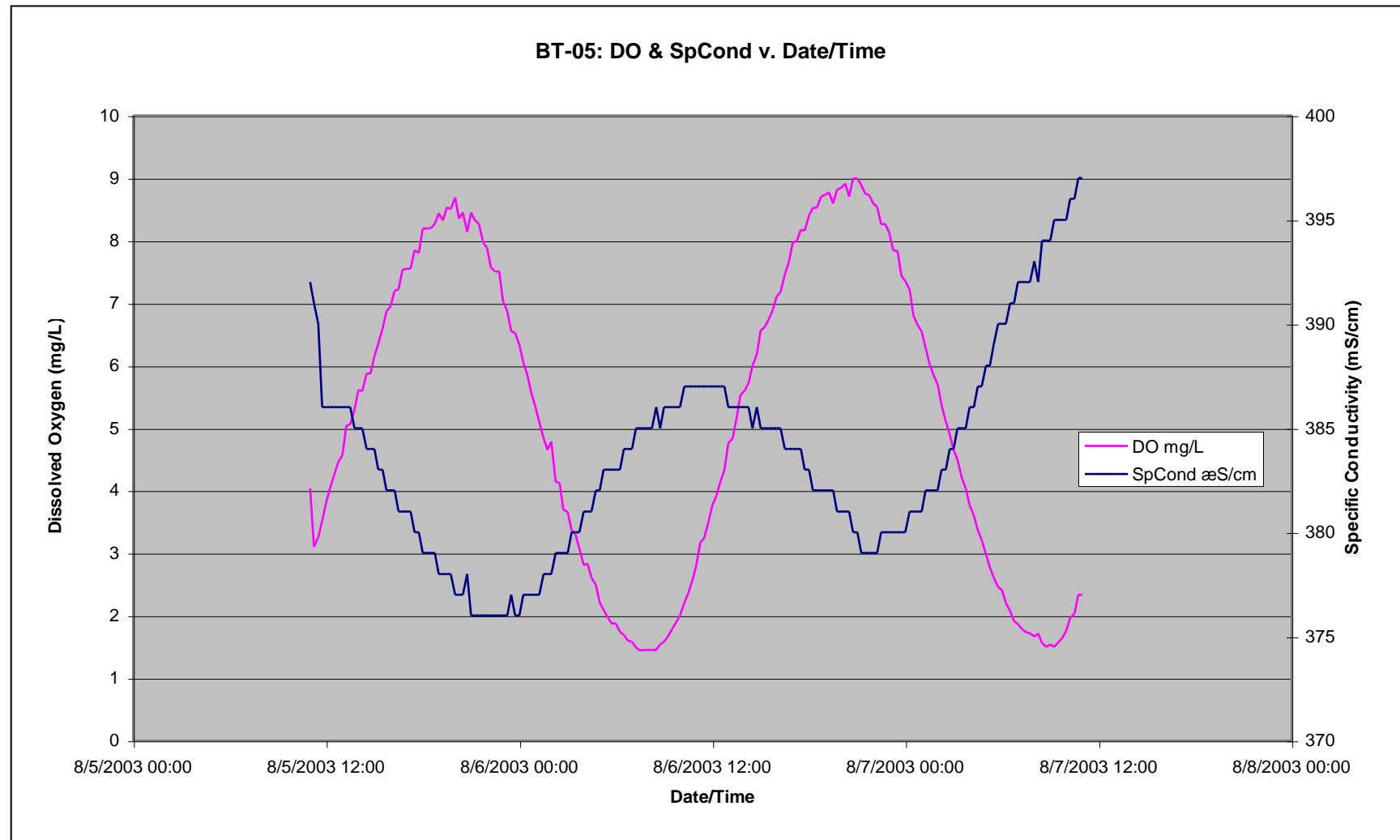
Originated: March 19, 2008

8/7/2003	4:30:00	31.16	486	0.25	7.3	0.15	2.1
8/7/2003	4:45:00	31.12	487	0.25	7.3	0.11	1.5
8/7/2003	5:00:00	31.08	488	0.25	7.3	0.19	2.6
8/7/2003	5:15:00	31.04	489	0.25	7.3	0.15	2.1
8/7/2003	5:30:00	30.96	490	0.25	7.31	0.14	1.8
8/7/2003	5:45:00	30.91	489	0.25	7.31	0.14	1.8
8/7/2003	6:00:00	30.83	489	0.25	7.32	0.13	1.7
8/7/2003	6:15:00	30.76	491	0.25	7.32	0.15	2
8/7/2003	6:30:00	30.72	492	0.25	7.32	0.15	2.1
8/7/2003	6:45:00	30.67	492	0.25	7.31	0.12	1.7
8/7/2003	7:00:00	30.67	492	0.25	7.32	0.11	1.4
8/7/2003	7:15:00	30.65	492	0.25	7.33	0.15	2
8/7/2003	7:30:00	30.53	491	0.25	7.34	0.2	2.6
8/7/2003	7:45:00	30.43	490	0.25	7.34	0.26	3.4
8/7/2003	8:00:00	30.34	492	0.25	7.34	0.15	2.1
8/7/2003	8:15:00	30.22	492	0.25	7.35	0.2	2.7
8/7/2003	8:30:00	30.23	491	0.25	7.34	0.27	3.7
8/7/2003	8:45:00	30.13	492	0.25	7.35	0.16	2.1
8/7/2003	9:00:00	30.08	493	0.25	7.35	0.34	4.5
8/7/2003	9:15:00	30.06	493	0.25	7.36	0.43	5.7
8/7/2003	9:30:00	30.02	494	0.25	7.35	0.3	4
8/7/2003	9:45:00	30	494	0.25	7.36	0.49	6.5
8/7/2003	10:00:00	30.07	495	0.25	7.37	0.78	10.4
8/7/2003	10:15:00	30.11	495	0.25	7.37	0.89	11.8
8/7/2003	10:30:00	30.11	496	0.25	7.36	0.97	12.9

Recovery finished at 080803 102303







MiniSonde 4a 40806

Log File Name : BT-05

Setup Date (MMDDYY) : 080403

Setup Time (HHMMSS) : 104815

Starting Date (MMDDYY) : 080403

Starting Time (HHMMSS) : 110000

Stopping Date (MMDDYY) : 122503

Stopping Time (HHMMSS) : 235959

Interval (HHMMSS) : 001500

Sensor warmup (HHMMSS) : 000200

Circltr warmup (HHMMSS) : 000200

Date MMDDYY	Time HHMMSS	Temp øC	SpCond æS/cm	Sal ppt	pH Units	DO mg/l	DO% Sat
8/5/2003	11:00:00	29.5	392	0.2	7.2	4.0	53.0
8/5/2003	11:15:00	29.5	391	0.2	7.2	3.1	40.8
8/5/2003	11:30:00	29.5	390	0.2	7.3	3.3	42.6
8/5/2003	11:45:00	29.5	386	0.2	7.3	3.5	46.1
8/5/2003	12:00:00	29.7	386	0.2	7.3	3.8	50.0
8/5/2003	12:15:00	29.8	386	0.2	7.3	4.1	53.7
8/5/2003	12:30:00	29.9	386	0.2	7.3	4.3	56.2
8/5/2003	12:45:00	30.0	386	0.2	7.3	4.5	58.9
8/5/2003	13:00:00	30.2	386	0.2	7.3	4.6	60.7
8/5/2003	13:15:00	30.4	386	0.2	7.4	5.0	67.3
8/5/2003	13:30:00	30.5	386	0.2	7.4	5.1	67.6
8/5/2003	13:45:00	30.6	385	0.2	7.4	5.3	70.8
8/5/2003	14:00:00	30.7	385	0.2	7.4	5.6	75.2
8/5/2003	14:15:00	30.8	385	0.2	7.4	5.6	75.0

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	14:30:00	31.0	384	0.2	7.4	5.9	79.1
8/5/2003	14:45:00	31.0	384	0.2	7.4	5.9	79.1
8/5/2003	15:00:00	31.1	384	0.2	7.4	6.2	83.1
8/5/2003	15:15:00	31.3	383	0.2	7.4	6.4	86.0
8/5/2003	15:30:00	31.4	383	0.2	7.4	6.6	89.5
8/5/2003	15:45:00	31.5	382	0.2	7.5	6.9	93.4
8/5/2003	16:00:00	31.6	382	0.2	7.5	6.9	94.6
8/5/2003	16:15:00	31.7	382	0.2	7.5	7.2	98.3
8/5/2003	16:30:00	31.8	381	0.2	7.5	7.2	98.5
8/5/2003	16:45:00	31.9	381	0.2	7.5	7.5	103.1
8/5/2003	17:00:00	31.9	381	0.2	7.5	7.6	103.4
8/5/2003	17:15:00	32.0	381	0.2	7.5	7.6	103.4
8/5/2003	17:30:00	32.0	380	0.2	7.6	7.9	107.7
8/5/2003	17:45:00	32.1	380	0.2	7.6	7.8	107.1
8/5/2003	18:00:00	32.1	379	0.2	7.6	8.2	112.6
8/5/2003	18:15:00	32.1	379	0.2	7.6	8.2	112.5
8/5/2003	18:30:00	32.2	379	0.2	7.6	8.2	112.7
8/5/2003	18:45:00	32.2	379	0.2	7.6	8.3	113.6
8/5/2003	19:00:00	32.2	378	0.2	7.6	8.4	116.0
8/5/2003	19:15:00	32.2	378	0.2	7.6	8.3	114.4
8/5/2003	19:30:00	32.2	378	0.2	7.6	8.5	117.3
8/5/2003	19:45:00	32.1	378	0.2	7.6	8.5	116.8
8/5/2003	20:00:00	32.1	377	0.2	7.7	8.7	119.3
8/5/2003	20:15:00	32.0	377	0.2	7.6	8.4	114.6
8/5/2003	20:30:00	32.0	377	0.2	7.7	8.5	115.8
8/5/2003	20:45:00	31.9	378	0.2	7.6	8.1	111.5
8/5/2003	21:00:00	31.9	376	0.2	7.7	8.5	115.7
8/5/2003	21:15:00	31.8	376	0.2	7.7	8.3	113.6
8/5/2003	21:30:00	31.7	376	0.2	7.7	8.3	112.8
8/5/2003	21:45:00	31.6	376	0.2	7.7	8.0	108.6
8/5/2003	22:00:00	31.6	376	0.2	7.6	7.9	107.3

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	22:15:00	31.5	376	0.2	7.6	7.6	102.9
8/5/2003	22:30:00	31.4	376	0.2	7.6	7.5	101.8
8/5/2003	22:45:00	31.4	376	0.2	7.6	7.5	101.9
8/5/2003	23:00:00	31.2	376	0.2	7.6	7.0	95.2
8/5/2003	23:15:00	31.2	376	0.2	7.6	6.9	92.9
8/5/2003	23:30:00	31.0	377	0.2	7.5	6.6	88.3
8/5/2003	23:45:00	31.0	376	0.2	7.5	6.5	87.8
8/6/2003	0:00:00	30.9	376	0.2	7.5	6.3	85.2
8/6/2003	0:15:00	30.8	377	0.2	7.5	6.1	81.3
8/6/2003	0:30:00	30.7	377	0.2	7.5	5.9	78.5
8/6/2003	0:45:00	30.6	377	0.2	7.5	5.6	74.3
8/6/2003	1:00:00	30.5	377	0.2	7.5	5.3	71.4
8/6/2003	1:15:00	30.4	377	0.2	7.4	5.1	67.8
8/6/2003	1:30:00	30.3	378	0.2	7.4	4.8	64.4
8/6/2003	1:45:00	30.2	378	0.2	7.4	4.7	61.8
8/6/2003	2:00:00	30.2	378	0.2	7.4	4.8	63.6
8/6/2003	2:15:00	30.1	379	0.2	7.4	4.1	54.9
8/6/2003	2:30:00	30.0	379	0.2	7.4	4.1	54.6
8/6/2003	2:45:00	29.9	379	0.2	7.3	3.7	48.8
8/6/2003	3:00:00	29.9	379	0.2	7.3	3.7	48.3
8/6/2003	3:15:00	29.8	380	0.2	7.3	3.4	44.3
8/6/2003	3:30:00	29.7	380	0.2	7.3	3.3	43.4
8/6/2003	3:45:00	29.6	380	0.2	7.3	3.1	40.4
8/6/2003	4:00:00	29.5	381	0.2	7.3	2.8	36.9
8/6/2003	4:15:00	29.5	381	0.2	7.3	2.8	37.2
8/6/2003	4:30:00	29.4	381	0.2	7.3	2.6	34.3
8/6/2003	4:45:00	29.4	382	0.2	7.3	2.5	32.7
8/6/2003	5:00:00	29.3	382	0.2	7.3	2.2	28.9
8/6/2003	5:15:00	29.2	383	0.2	7.3	2.1	27.4
8/6/2003	5:30:00	29.2	383	0.2	7.2	2.0	25.7
8/6/2003	5:45:00	29.1	383	0.2	7.2	1.9	24.5

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	6:00:00	29.1	383	0.2	7.2	1.9	24.5
8/6/2003	6:15:00	29.1	383	0.2	7.2	1.7	22.7
8/6/2003	6:30:00	29.0	384	0.2	7.2	1.7	22.0
8/6/2003	6:45:00	29.0	384	0.2	7.2	1.6	20.8
8/6/2003	7:00:00	28.9	384	0.2	7.2	1.6	20.6
8/6/2003	7:15:00	28.9	385	0.2	7.2	1.5	19.3
8/6/2003	7:30:00	28.9	385	0.2	7.2	1.4	18.7
8/6/2003	7:45:00	28.8	385	0.2	7.2	1.5	18.8
8/6/2003	8:00:00	28.8	385	0.2	7.2	1.5	18.9
8/6/2003	8:15:00	28.8	385	0.2	7.2	1.5	18.9
8/6/2003	8:30:00	28.8	386	0.2	7.2	1.5	18.9
8/6/2003	8:45:00	28.8	385	0.2	7.2	1.5	20.0
8/6/2003	9:00:00	28.8	386	0.2	7.2	1.6	20.5
8/6/2003	9:15:00	28.9	386	0.2	7.2	1.7	21.5
8/6/2003	9:30:00	28.9	386	0.2	7.2	1.8	23.2
8/6/2003	9:45:00	29.0	386	0.2	7.2	1.9	24.5
8/6/2003	10:00:00	29.1	386	0.2	7.2	2.0	26.1
8/6/2003	10:15:00	29.2	387	0.2	7.2	2.2	28.8
8/6/2003	10:30:00	29.3	387	0.2	7.2	2.4	30.7
8/6/2003	10:45:00	29.4	387	0.2	7.2	2.6	33.5
8/6/2003	11:00:00	29.5	387	0.2	7.2	2.8	37.0
8/6/2003	11:15:00	29.6	387	0.2	7.3	3.2	41.7
8/6/2003	11:30:00	29.7	387	0.2	7.3	3.2	42.7
8/6/2003	11:45:00	29.8	387	0.2	7.3	3.5	46.2
8/6/2003	12:00:00	29.9	387	0.2	7.3	3.8	49.7
8/6/2003	12:15:00	29.9	387	0.2	7.3	3.9	51.8
8/6/2003	12:30:00	30.0	387	0.2	7.3	4.2	55.0
8/6/2003	12:45:00	30.1	387	0.2	7.3	4.3	57.5
8/6/2003	13:00:00	30.3	386	0.2	7.3	4.8	63.4
8/6/2003	13:15:00	30.3	386	0.2	7.3	4.8	64.3
8/6/2003	13:30:00	30.5	386	0.2	7.4	5.2	68.8

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	13:45:00	30.6	386	0.2	7.4	5.5	74.0
8/6/2003	14:00:00	30.7	386	0.2	7.4	5.6	75.0
8/6/2003	14:15:00	30.7	386	0.2	7.4	5.7	76.8
8/6/2003	14:30:00	30.9	385	0.2	7.4	6.0	80.6
8/6/2003	14:45:00	30.9	386	0.2	7.4	6.2	83.2
8/6/2003	15:00:00	31.1	385	0.2	7.4	6.6	88.6
8/6/2003	15:15:00	31.1	385	0.2	7.4	6.6	89.2
8/6/2003	15:30:00	31.2	385	0.2	7.4	6.7	91.0
8/6/2003	15:45:00	31.3	385	0.2	7.5	6.9	93.3
8/6/2003	16:00:00	31.4	385	0.2	7.5	7.1	96.4
8/6/2003	16:15:00	31.4	385	0.2	7.5	7.2	97.4
8/6/2003	16:30:00	31.5	384	0.2	7.5	7.5	101.5
8/6/2003	16:45:00	31.6	384	0.2	7.5	7.7	104.3
8/6/2003	17:00:00	31.8	384	0.2	7.5	8.0	108.7
8/6/2003	17:15:00	31.7	384	0.2	7.6	8.0	109.2
8/6/2003	17:30:00	31.8	384	0.2	7.6	8.2	111.6
8/6/2003	17:45:00	31.8	383	0.2	7.6	8.2	111.6
8/6/2003	18:00:00	31.9	383	0.2	7.6	8.4	114.9
8/6/2003	18:15:00	31.9	382	0.2	7.6	8.5	116.6
8/6/2003	18:30:00	31.9	382	0.2	7.6	8.5	116.6
8/6/2003	18:45:00	31.9	382	0.2	7.6	8.7	119.1
8/6/2003	19:00:00	32.0	382	0.2	7.7	8.7	119.6
8/6/2003	19:15:00	32.0	382	0.2	7.7	8.8	120.2
8/6/2003	19:30:00	31.9	382	0.2	7.7	8.6	117.6
8/6/2003	19:45:00	32.0	381	0.2	7.7	8.8	120.8
8/6/2003	20:00:00	32.0	381	0.2	7.7	8.8	121.1
8/6/2003	20:15:00	32.0	381	0.2	7.7	8.9	122.1
8/6/2003	20:30:00	31.9	381	0.2	7.7	8.7	119.1
8/6/2003	20:45:00	31.9	380	0.2	7.7	9.0	123.0
8/6/2003	21:00:00	31.9	380	0.2	7.8	9.0	123.0
8/6/2003	21:15:00	31.8	379	0.2	7.8	8.9	121.6

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

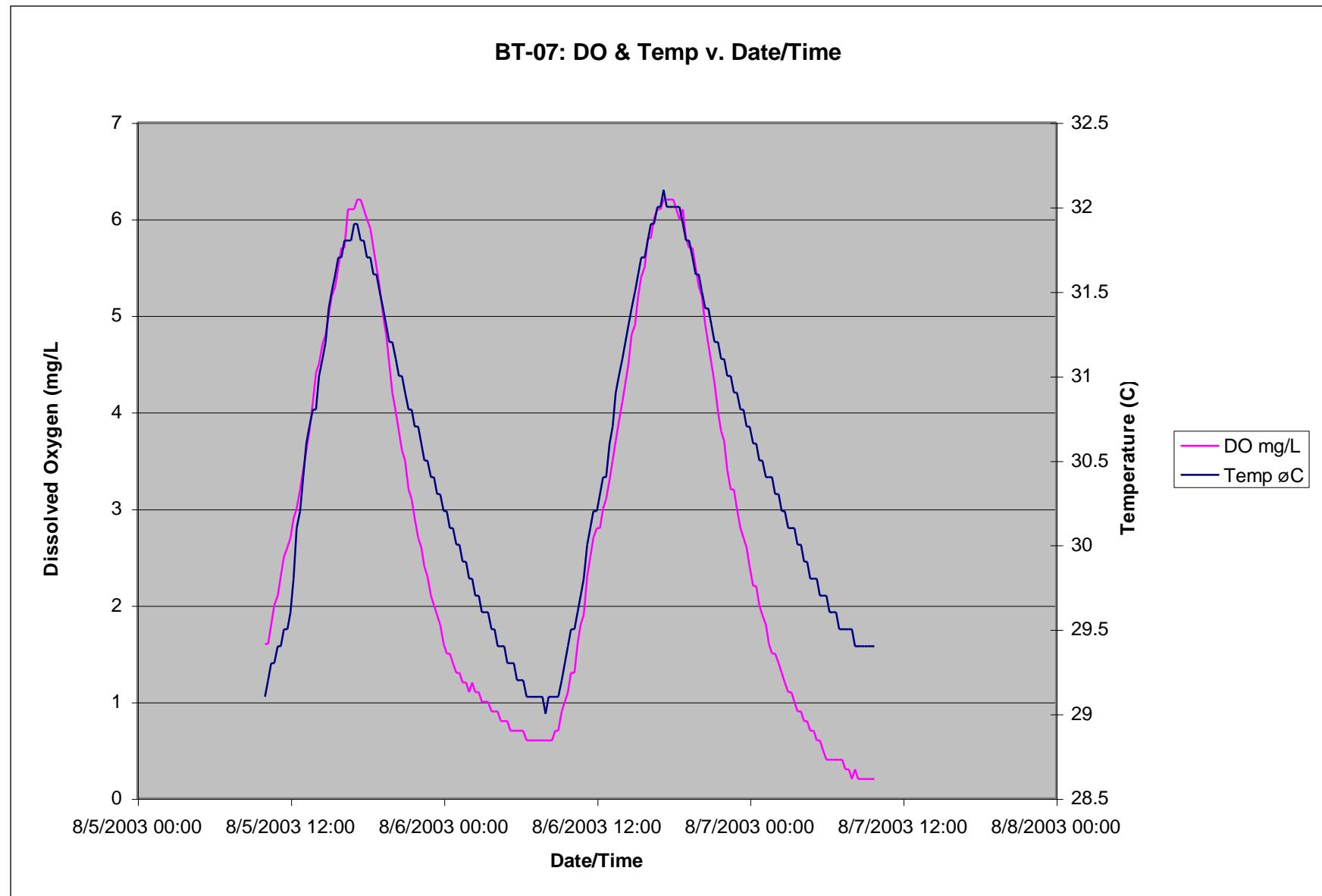
8/6/2003	21:30:00	31.8	379	0.2	7.8	8.8	119.6
8/6/2003	21:45:00	31.7	379	0.2	7.8	8.7	119.1
8/6/2003	22:00:00	31.7	379	0.2	7.7	8.6	117.1
8/6/2003	22:15:00	31.6	379	0.2	7.7	8.5	116.3
8/6/2003	22:30:00	31.5	380	0.2	7.7	8.3	112.3
8/6/2003	22:45:00	31.5	380	0.2	7.7	8.3	112.2
8/6/2003	23:00:00	31.4	380	0.2	7.7	8.1	110.2
8/6/2003	23:15:00	31.3	380	0.2	7.7	7.8	106.2
8/6/2003	23:30:00	31.3	380	0.2	7.7	7.8	106.0
8/6/2003	23:45:00	31.2	380	0.2	7.7	7.4	100.5
8/7/2003	0:00:00	31.1	380	0.2	7.6	7.4	99.1
8/7/2003	0:15:00	31.0	381	0.2	7.6	7.2	97.3
8/7/2003	0:30:00	30.9	381	0.2	7.6	6.8	91.5
8/7/2003	0:45:00	30.9	381	0.2	7.6	6.7	89.6
8/7/2003	1:00:00	30.8	381	0.2	7.6	6.5	87.9
8/7/2003	1:15:00	30.7	382	0.2	7.6	6.3	84.3
8/7/2003	1:30:00	30.6	382	0.2	7.5	6.0	80.7
8/7/2003	1:45:00	30.5	382	0.2	7.5	5.8	78.1
8/7/2003	2:00:00	30.5	382	0.2	7.5	5.7	76.2
8/7/2003	2:15:00	30.4	383	0.2	7.5	5.4	71.7
8/7/2003	2:30:00	30.3	383	0.2	7.5	5.1	67.9
8/7/2003	2:45:00	30.2	384	0.2	7.4	4.9	65.1
8/7/2003	3:00:00	30.1	384	0.2	7.4	4.7	61.8
8/7/2003	3:15:00	30.1	385	0.2	7.4	4.5	59.6
8/7/2003	3:30:00	30.0	385	0.2	7.4	4.2	55.6
8/7/2003	3:45:00	29.9	385	0.2	7.4	4.0	53.4
8/7/2003	4:00:00	29.8	386	0.2	7.4	3.8	49.8
8/7/2003	4:15:00	29.7	386	0.2	7.4	3.6	47.5
8/7/2003	4:30:00	29.7	387	0.2	7.3	3.4	44.4
8/7/2003	4:45:00	29.6	387	0.2	7.3	3.2	42.2
8/7/2003	5:00:00	29.5	388	0.2	7.3	3.0	39.1

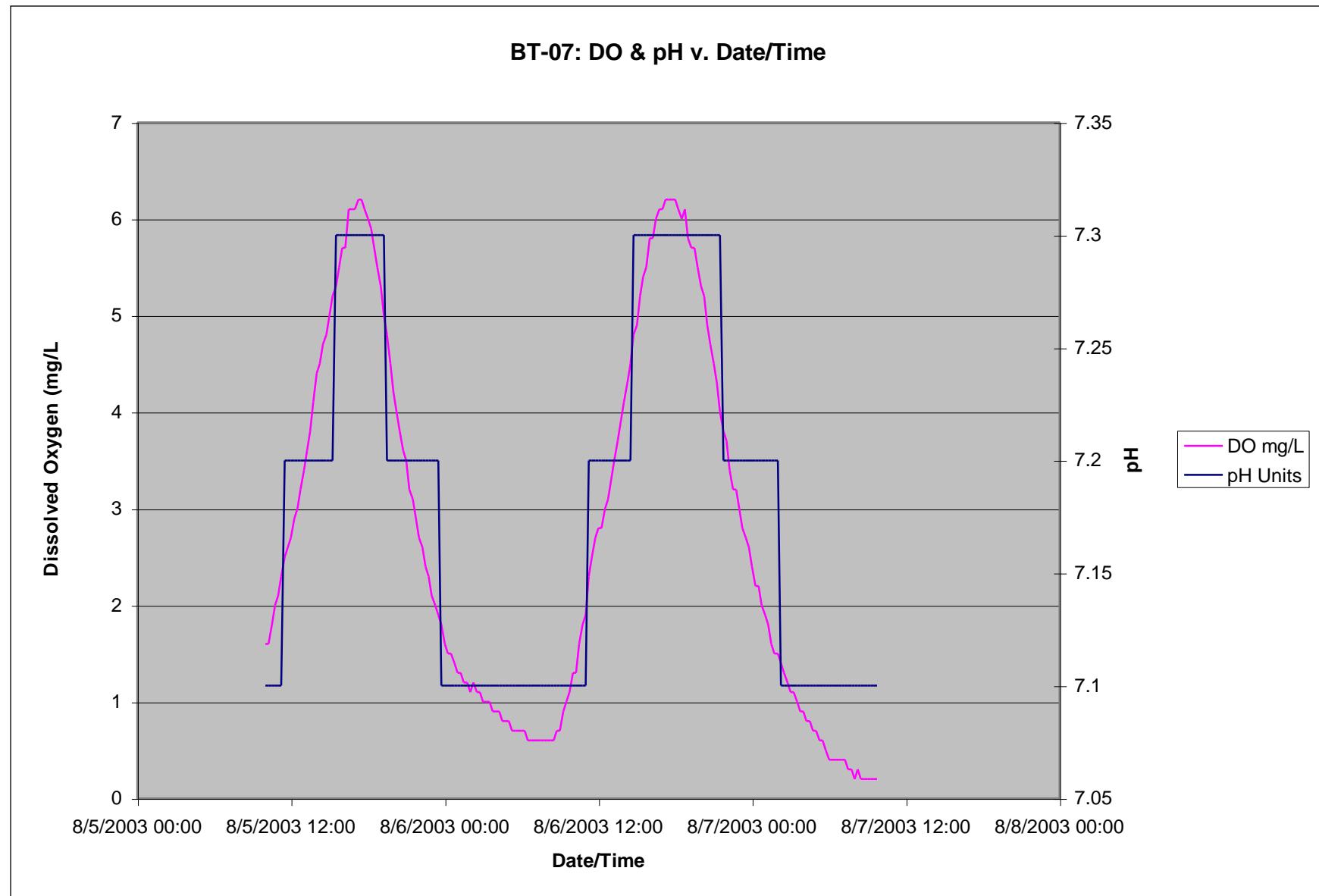
Bayou Terrebonne Watershed TMDL

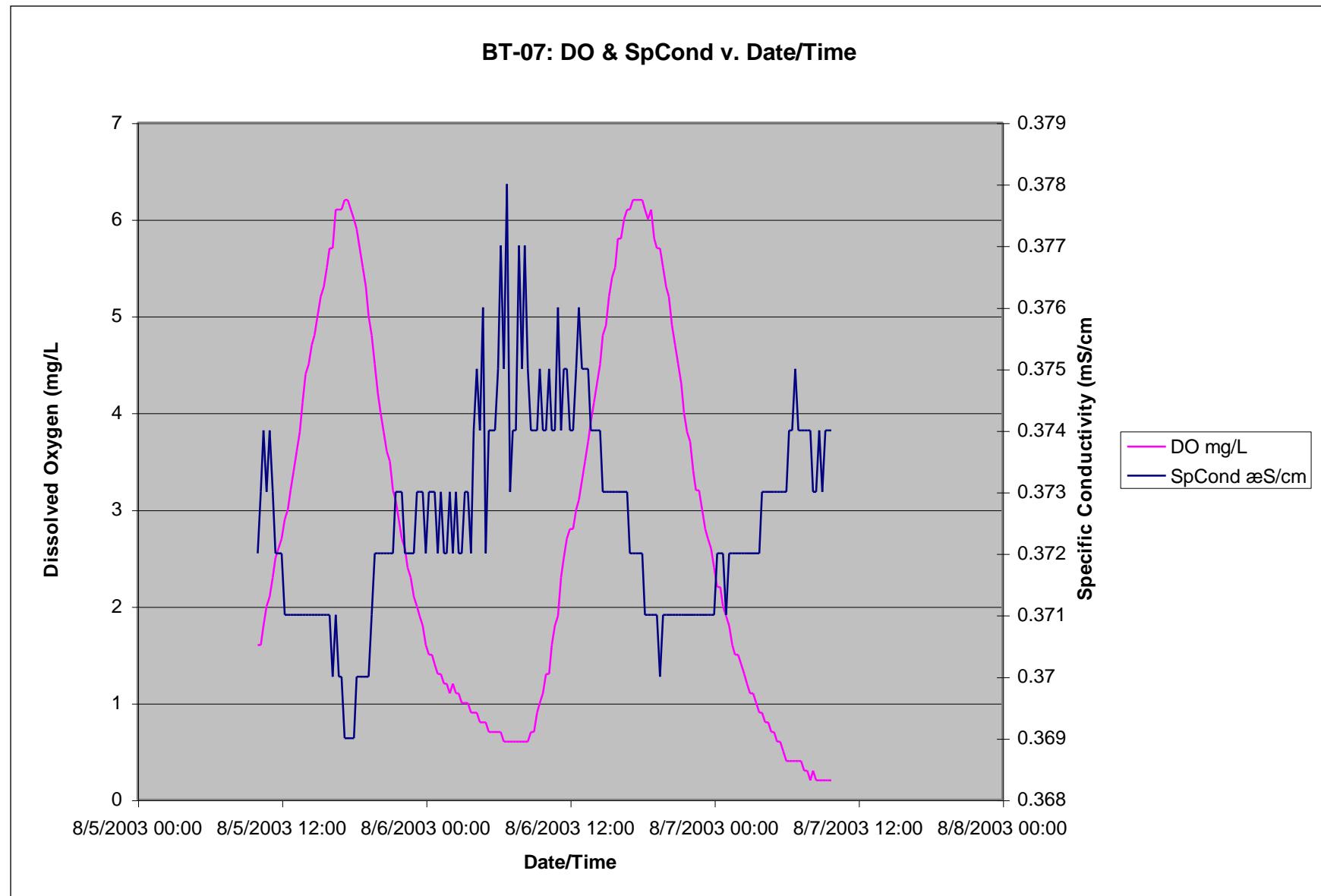
Subsegment 120301

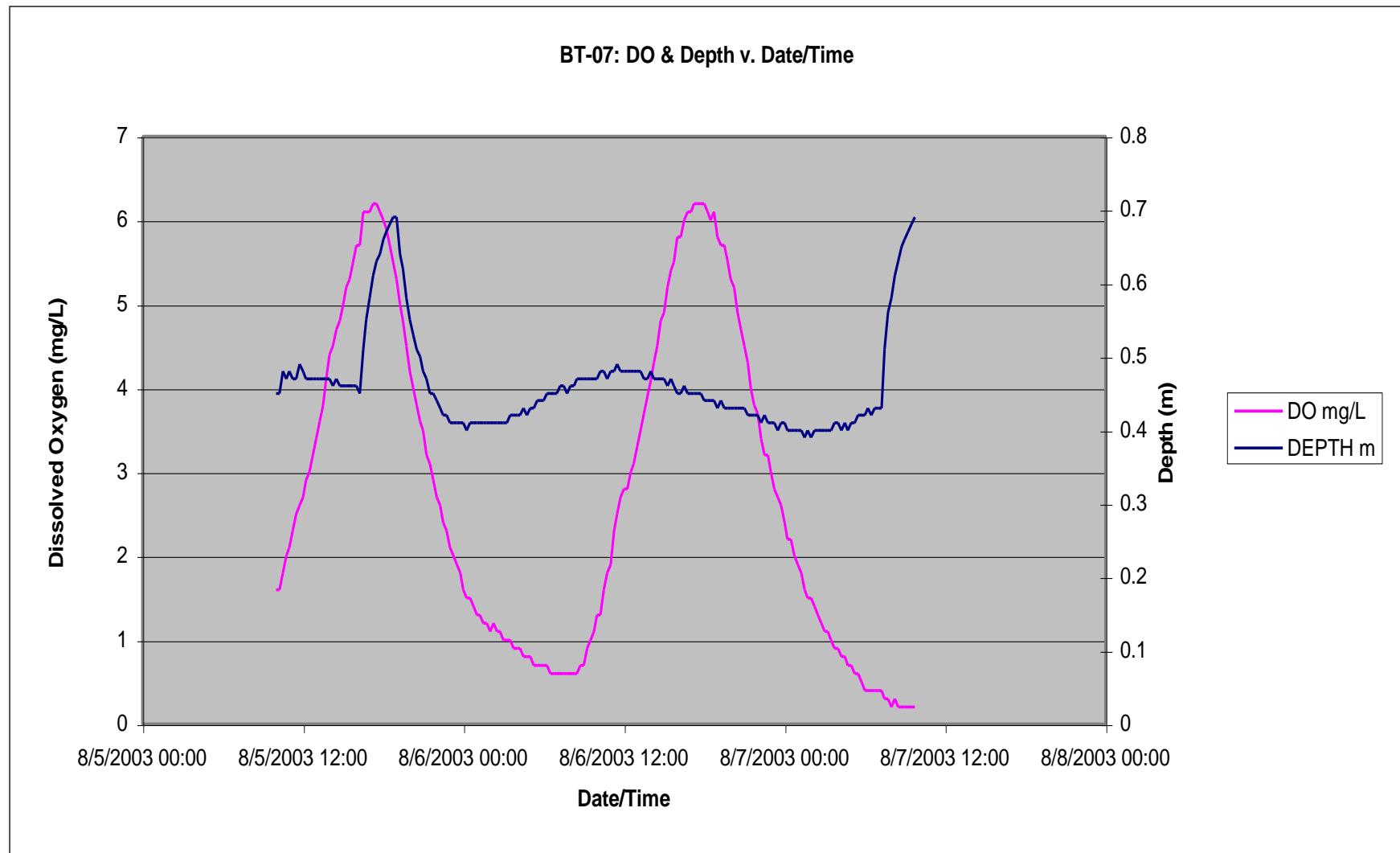
Originated: March 19, 2008

8/7/2003	5:15:00	29.5	388	0.2	7.3	2.8	36.3
8/7/2003	5:30:00	29.4	389	0.2	7.3	2.6	34.2
8/7/2003	5:45:00	29.3	390	0.2	7.3	2.5	32.3
8/7/2003	6:00:00	29.3	390	0.2	7.3	2.4	31.5
8/7/2003	6:15:00	29.2	390	0.2	7.3	2.2	28.8
8/7/2003	6:30:00	29.2	391	0.2	7.3	2.1	27.0
8/7/2003	6:45:00	29.1	391	0.2	7.2	1.9	24.9
8/7/2003	7:00:00	29.1	392	0.2	7.2	1.9	24.2
8/7/2003	7:15:00	29.0	392	0.2	7.2	1.8	23.2
8/7/2003	7:30:00	29.0	392	0.2	7.2	1.7	22.6
8/7/2003	7:45:00	29.0	392	0.2	7.2	1.7	22.4
8/7/2003	8:00:00	28.9	393	0.2	7.2	1.7	21.6
8/7/2003	8:15:00	28.9	392	0.2	7.2	1.7	22.2
8/7/2003	8:30:00	28.8	394	0.2	7.2	1.6	20.2
8/7/2003	8:45:00	28.8	394	0.2	7.2	1.5	19.5
8/7/2003	9:00:00	28.8	394	0.2	7.2	1.5	19.9
8/7/2003	9:15:00	28.8	395	0.2	7.2	1.5	19.5
8/7/2003	9:30:00	28.8	395	0.2	7.2	1.6	20.4
8/7/2003	9:45:00	28.8	395	0.2	7.2	1.6	21.2
8/7/2003	10:00:00	28.8	395	0.2	7.2	1.8	22.8
8/7/2003	10:15:00	28.8	396	0.2	7.2	2.0	25.4
8/7/2003	10:30:00	28.9	396	0.2	7.2	2.0	26.3
8/7/2003	10:45:00	28.9	397	0.2	7.2	2.3	30.2
8/7/2003	11:00:00	29.0	397	0.2	7.2	2.3	30.3









MiniSonde 4a 40006

Log File Name : BT-06/07

Setup Date (MMDDYY) : 080403

Setup Time (HHMMSS) : 125317

Starting Date (MMDDYY) : 080403

Starting Time (HHMMSS) : 130000

Stopping Date (MMDDYY) : 080809

Stopping Time (HHMMSS) : 235959

Interval (HHMMSS) : 001500

Sensor warmup (HHMMSS) : 000200

Circltr warmup (HHMMSS) : 000200

Date MMDDYY	Time HHMMSS	Temp øC	pH Units	SpCond mS/cm	Sal ppt	DO% Sat	DO mg/l	Depth meters
8/5/2003	10:00:00	29.1	7.1	0.372	0.2	20.2	1.6	0.45
8/5/2003	10:15:00	29.2	7.1	0.373	0.2	21.5	1.6	0.45
8/5/2003	10:30:00	29.3	7.1	0.374	0.2	22.9	1.8	0.48
8/5/2003	10:45:00	29.3	7.1	0.373	0.2	26.0	2.0	0.47
8/5/2003	11:00:00	29.4	7.1	0.374	0.2	27.9	2.1	0.48
8/5/2003	11:15:00	29.4	7.1	0.373	0.2	30.2	2.3	0.47
8/5/2003	11:30:00	29.5	7.2	0.372	0.2	32.2	2.5	0.47
8/5/2003	11:45:00	29.5	7.2	0.372	0.2	33.8	2.6	0.49
8/5/2003	12:00:00	29.6	7.2	0.372	0.2	35.5	2.7	0.48
8/5/2003	12:15:00	29.8	7.2	0.371	0.2	37.8	2.9	0.47
8/5/2003	12:30:00	30.1	7.2	0.371	0.2	39.6	3.0	0.47
8/5/2003	12:45:00	30.2	7.2	0.371	0.2	42.0	3.2	0.47
8/5/2003	13:00:00	30.4	7.2	0.371	0.2	45.4	3.4	0.47

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	13:15:00	30.6	7.2	0.371	0.2	48.2	3.6	0.47
8/5/2003	13:30:00	30.7	7.2	0.371	0.2	51.5	3.8	0.47
8/5/2003	13:45:00	30.8	7.2	0.371	0.2	54.8	4.1	0.47
8/5/2003	14:00:00	30.8	7.2	0.371	0.2	58.7	4.4	0.47
8/5/2003	14:15:00	31.0	7.2	0.371	0.2	61.1	4.5	0.46
8/5/2003	14:30:00	31.1	7.2	0.371	0.2	63.4	4.7	0.47
8/5/2003	14:45:00	31.2	7.2	0.371	0.2	65.1	4.8	0.46
8/5/2003	15:00:00	31.4	7.2	0.371	0.2	68.2	5.0	0.46
8/5/2003	15:15:00	31.5	7.2	0.371	0.2	69.9	5.2	0.46
8/5/2003	15:30:00	31.6	7.3	0.371	0.2	72.4	5.3	0.46
8/5/2003	15:45:00	31.7	7.3	0.371	0.2	74.9	5.5	0.46
8/5/2003	16:00:00	31.7	7.3	0.371	0.2	77.1	5.7	0.46
8/5/2003	16:15:00	31.8	7.3	0.37	0.2	78.2	5.7	0.45
8/5/2003	16:30:00	31.8	7.3	0.371	0.2	82.7	6.1	0.51
8/5/2003	16:45:00	31.8	7.3	0.37	0.2	83.3	6.1	0.55
8/5/2003	17:00:00	31.9	7.3	0.37	0.2	83.5	6.1	0.58
8/5/2003	17:15:00	31.9	7.3	0.369	0.2	85.3	6.2	0.61
8/5/2003	17:30:00	31.8	7.3	0.369	0.2	84.4	6.2	0.63
8/5/2003	17:45:00	31.8	7.3	0.369	0.2	83.8	6.1	0.64
8/5/2003	18:00:00	31.7	7.3	0.369	0.2	82.4	6.0	0.66
8/5/2003	18:15:00	31.7	7.3	0.37	0.2	80.4	5.9	0.67
8/5/2003	18:30:00	31.6	7.3	0.37	0.2	77.6	5.7	0.68
8/5/2003	18:45:00	31.6	7.3	0.37	0.2	74.3	5.5	0.69
8/5/2003	19:00:00	31.5	7.3	0.37	0.2	71.6	5.3	0.69
8/5/2003	19:15:00	31.4	7.3	0.37	0.2	67.7	5.0	0.64
8/5/2003	19:30:00	31.3	7.2	0.371	0.2	64.9	4.8	0.62
8/5/2003	19:45:00	31.2	7.2	0.372	0.2	60.6	4.5	0.58
8/5/2003	20:00:00	31.2	7.2	0.372	0.2	56.8	4.2	0.55
8/5/2003	20:15:00	31.1	7.2	0.372	0.2	54.3	4.0	0.53
8/5/2003	20:30:00	31.0	7.2	0.372	0.2	51.5	3.8	0.51
8/5/2003	20:45:00	31.0	7.2	0.372	0.2	49.0	3.6	0.50

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	21:00:00	30.9	7.2	0.372	0.2	46.4	3.5	0.48
8/5/2003	21:15:00	30.8	7.2	0.372	0.2	43.6	3.2	0.47
8/5/2003	21:30:00	30.8	7.2	0.373	0.2	41.7	3.1	0.45
8/5/2003	21:45:00	30.7	7.2	0.373	0.2	38.2	2.9	0.45
8/5/2003	22:00:00	30.7	7.2	0.373	0.2	36.1	2.7	0.44
8/5/2003	22:15:00	30.6	7.2	0.372	0.2	34.3	2.6	0.43
8/5/2003	22:30:00	30.5	7.2	0.372	0.2	32.7	2.4	0.42
8/5/2003	22:45:00	30.5	7.2	0.372	0.2	30.5	2.3	0.42
8/5/2003	23:00:00	30.4	7.2	0.372	0.2	27.9	2.1	0.41
8/5/2003	23:15:00	30.4	7.2	0.373	0.2	26.9	2.0	0.41
8/5/2003	23:30:00	30.3	7.2	0.373	0.2	25.3	1.9	0.41
8/5/2003	23:45:00	30.3	7.1	0.373	0.2	24.0	1.8	0.41
8/6/2003	0:00:00	30.2	7.1	0.372	0.2	21.5	1.6	0.41
8/6/2003	0:15:00	30.2	7.1	0.373	0.2	20.3	1.5	0.40
8/6/2003	0:30:00	30.1	7.1	0.373	0.2	19.7	1.5	0.41
8/6/2003	0:45:00	30.1	7.1	0.373	0.2	18.1	1.4	0.41
8/6/2003	1:00:00	30.0	7.1	0.372	0.2	17.4	1.3	0.41
8/6/2003	1:15:00	30.0	7.1	0.373	0.2	16.5	1.3	0.41
8/6/2003	1:30:00	29.9	7.1	0.372	0.2	15.9	1.2	0.41
8/6/2003	1:45:00	29.9	7.1	0.372	0.2	15.4	1.2	0.41
8/6/2003	2:00:00	29.8	7.1	0.373	0.2	14.8	1.1	0.41
8/6/2003	2:15:00	29.8	7.1	0.372	0.2	15.2	1.2	0.41
8/6/2003	2:30:00	29.7	7.1	0.373	0.2	14.2	1.1	0.41
8/6/2003	2:45:00	29.7	7.1	0.372	0.2	13.8	1.1	0.41
8/6/2003	3:00:00	29.6	7.1	0.372	0.2	13.0	1.0	0.41
8/6/2003	3:15:00	29.6	7.1	0.373	0.2	12.6	1.0	0.41
8/6/2003	3:30:00	29.6	7.1	0.373	0.2	12.5	1.0	0.42
8/6/2003	3:45:00	29.5	7.1	0.372	0.2	11.9	0.9	0.42
8/6/2003	4:00:00	29.5	7.1	0.374	0.2	12.0	0.9	0.42
8/6/2003	4:15:00	29.4	7.1	0.375	0.2	11.8	0.9	0.42
8/6/2003	4:30:00	29.4	7.1	0.374	0.2	10.6	0.8	0.43

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	4:45:00	29.4	7.1	0.376	0.2	10.1	0.8	0.42
8/6/2003	5:00:00	29.3	7.1	0.372	0.2	10.0	0.8	0.43
8/6/2003	5:15:00	29.3	7.1	0.374	0.2	9.7	0.7	0.43
8/6/2003	5:30:00	29.3	7.1	0.374	0.2	9.1	0.7	0.44
8/6/2003	5:45:00	29.2	7.1	0.374	0.2	9.0	0.7	0.44
8/6/2003	6:00:00	29.2	7.1	0.375	0.2	9.2	0.7	0.44
8/6/2003	6:15:00	29.2	7.1	0.377	0.2	8.6	0.7	0.45
8/6/2003	6:30:00	29.1	7.1	0.375	0.2	8.0	0.6	0.45
8/6/2003	6:45:00	29.1	7.1	0.378	0.2	8.1	0.6	0.45
8/6/2003	7:00:00	29.1	7.1	0.373	0.2	7.5	0.6	0.45
8/6/2003	7:15:00	29.1	7.1	0.374	0.2	7.9	0.6	0.46
8/6/2003	7:30:00	29.1	7.1	0.374	0.2	7.5	0.6	0.46
8/6/2003	7:45:00	29.1	7.1	0.377	0.2	7.8	0.6	0.45
8/6/2003	8:00:00	29.0	7.1	0.375	0.2	7.5	0.6	0.46
8/6/2003	8:15:00	29.1	7.1	0.377	0.2	8.3	0.6	0.46
8/6/2003	8:30:00	29.1	7.1	0.375	0.2	8.4	0.6	0.47
8/6/2003	8:45:00	29.1	7.1	0.374	0.2	9.0	0.7	0.47
8/6/2003	9:00:00	29.1	7.1	0.374	0.2	9.4	0.7	0.47
8/6/2003	9:15:00	29.2	7.1	0.374	0.2	11.0	0.9	0.47
8/6/2003	9:30:00	29.3	7.1	0.375	0.2	12.8	1.0	0.47
8/6/2003	9:45:00	29.4	7.1	0.374	0.2	14.8	1.1	0.47
8/6/2003	10:00:00	29.5	7.1	0.374	0.2	16.6	1.3	0.47
8/6/2003	10:15:00	29.5	7.1	0.375	0.2	17.5	1.3	0.48
8/6/2003	10:30:00	29.6	7.1	0.374	0.2	21.4	1.6	0.48
8/6/2003	10:45:00	29.7	7.1	0.374	0.2	23.7	1.8	0.47
8/6/2003	11:00:00	29.8	7.1	0.376	0.2	25.5	1.9	0.48
8/6/2003	11:15:00	30.0	7.2	0.374	0.2	30.2	2.3	0.48
8/6/2003	11:30:00	30.1	7.2	0.375	0.2	32.8	2.5	0.49
8/6/2003	11:45:00	30.2	7.2	0.375	0.2	35.2	2.7	0.48
8/6/2003	12:00:00	30.2	7.2	0.374	0.2	36.8	2.8	0.48
8/6/2003	12:15:00	30.3	7.2	0.374	0.2	37.6	2.8	0.48

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	12:30:00	30.4	7.2	0.375	0.2	40.5	3.0	0.48
8/6/2003	12:45:00	30.4	7.2	0.376	0.2	41.5	3.1	0.48
8/6/2003	13:00:00	30.6	7.2	0.375	0.2	44.7	3.3	0.48
8/6/2003	13:15:00	30.7	7.2	0.375	0.2	46.5	3.5	0.48
8/6/2003	13:30:00	30.9	7.2	0.375	0.2	50.0	3.7	0.47
8/6/2003	13:45:00	31.0	7.2	0.374	0.2	52.3	3.9	0.47
8/6/2003	14:00:00	31.1	7.2	0.374	0.2	55.9	4.1	0.48
8/6/2003	14:15:00	31.2	7.2	0.374	0.2	58.3	4.3	0.47
8/6/2003	14:30:00	31.3	7.2	0.374	0.2	60.7	4.5	0.47
8/6/2003	14:45:00	31.4	7.3	0.373	0.2	65.1	4.8	0.47
8/6/2003	15:00:00	31.5	7.3	0.373	0.2	67.2	4.9	0.47
8/6/2003	15:15:00	31.6	7.3	0.373	0.2	70.3	5.2	0.46
8/6/2003	15:30:00	31.7	7.3	0.373	0.2	73.2	5.4	0.47
8/6/2003	15:45:00	31.7	7.3	0.373	0.2	74.7	5.5	0.46
8/6/2003	16:00:00	31.8	7.3	0.373	0.2	78.9	5.8	0.45
8/6/2003	16:15:00	31.9	7.3	0.373	0.2	79.3	5.8	0.45
8/6/2003	16:30:00	31.9	7.3	0.373	0.2	82.4	6.0	0.46
8/6/2003	16:45:00	32.0	7.3	0.373	0.2	83.1	6.1	0.45
8/6/2003	17:00:00	32.0	7.3	0.372	0.2	84.0	6.1	0.45
8/6/2003	17:15:00	32.1	7.3	0.372	0.2	84.4	6.2	0.45
8/6/2003	17:30:00	32.0	7.3	0.372	0.2	84.5	6.2	0.45
8/6/2003	17:45:00	32.0	7.3	0.372	0.2	85.3	6.2	0.45
8/6/2003	18:00:00	32.0	7.3	0.372	0.2	85.4	6.2	0.44
8/6/2003	18:15:00	32.0	7.3	0.371	0.2	84.2	6.1	0.44
8/6/2003	18:30:00	32.0	7.3	0.371	0.2	82.3	6.0	0.44
8/6/2003	18:45:00	31.9	7.3	0.371	0.2	82.9	6.1	0.44
8/6/2003	19:00:00	31.8	7.3	0.371	0.2	79.1	5.8	0.43
8/6/2003	19:15:00	31.8	7.3	0.371	0.2	78.2	5.7	0.44
8/6/2003	19:30:00	31.7	7.3	0.37	0.2	77.2	5.7	0.43
8/6/2003	19:45:00	31.6	7.3	0.371	0.2	75.1	5.5	0.43
8/6/2003	20:00:00	31.6	7.3	0.371	0.2	72.5	5.3	0.43

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

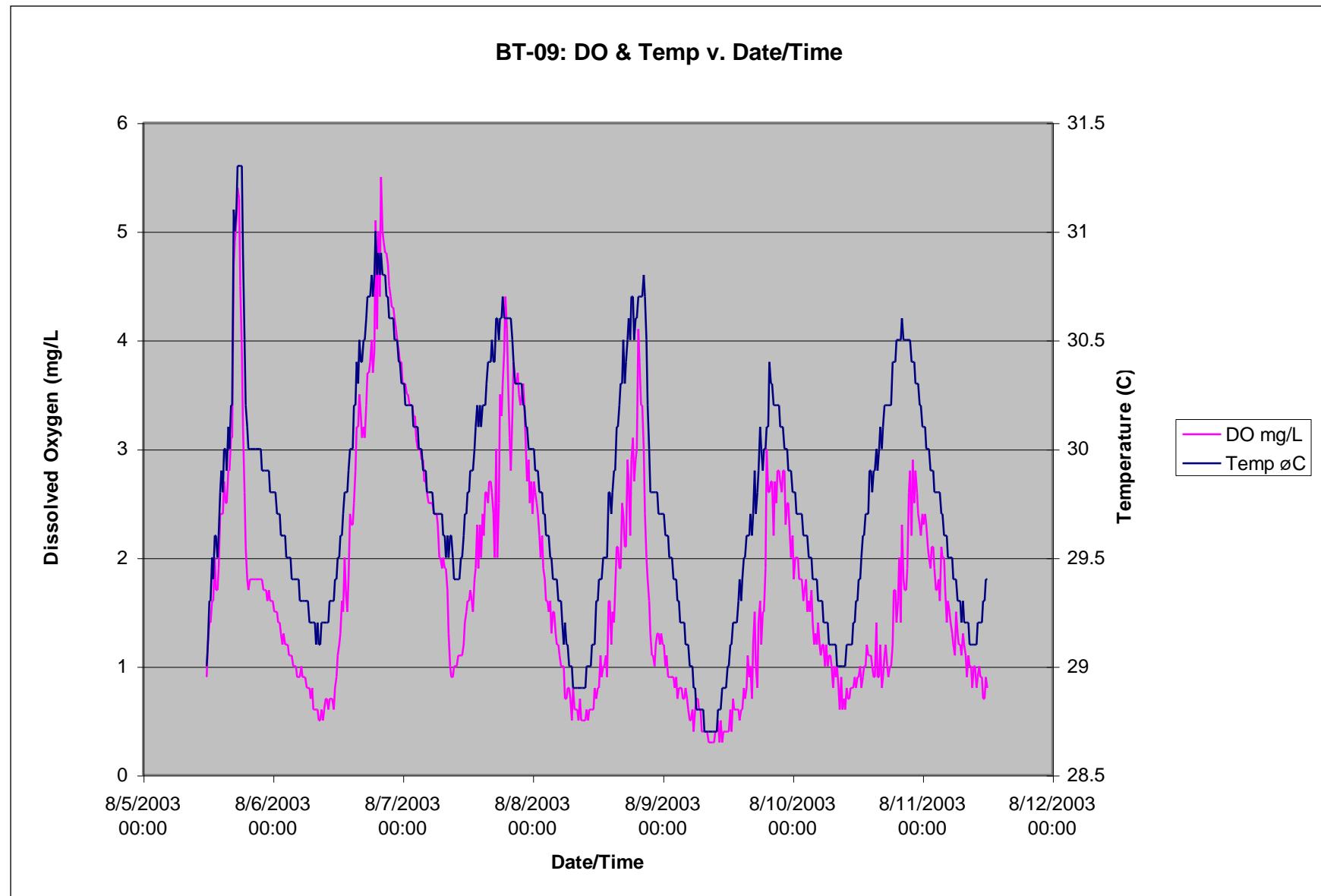
8/6/2003	20:15:00	31.5	7.3	0.371	0.2	70.1	5.2	0.43
8/6/2003	20:30:00	31.4	7.3	0.371	0.2	66.0	4.9	0.43
8/6/2003	20:45:00	31.4	7.3	0.371	0.2	64.2	4.7	0.43
8/6/2003	21:00:00	31.3	7.3	0.371	0.2	60.8	4.5	0.43
8/6/2003	21:15:00	31.2	7.3	0.371	0.2	57.6	4.3	0.42
8/6/2003	21:30:00	31.2	7.3	0.371	0.2	54.4	4.0	0.42
8/6/2003	21:45:00	31.1	7.2	0.371	0.2	51.7	3.8	0.42
8/6/2003	22:00:00	31.1	7.2	0.371	0.2	49.7	3.7	0.42
8/6/2003	22:15:00	31.0	7.2	0.371	0.2	46.1	3.4	0.41
8/6/2003	22:30:00	31.0	7.2	0.371	0.2	43.7	3.2	0.42
8/6/2003	22:45:00	30.9	7.2	0.371	0.2	42.4	3.2	0.41
8/6/2003	23:00:00	30.9	7.2	0.371	0.2	40.2	3.0	0.41
8/6/2003	23:15:00	30.8	7.2	0.371	0.2	37.8	2.8	0.41
8/6/2003	23:30:00	30.8	7.2	0.371	0.2	36.2	2.7	0.40
8/6/2003	23:45:00	30.7	7.2	0.371	0.2	34.4	2.6	0.41
8/7/2003	0:00:00	30.7	7.2	0.371	0.2	32.4	2.4	0.41
8/7/2003	0:15:00	30.6	7.2	0.372	0.2	30.1	2.2	0.40
8/7/2003	0:30:00	30.6	7.2	0.372	0.2	29.0	2.2	0.40
8/7/2003	0:45:00	30.5	7.2	0.372	0.2	27.3	2.0	0.40
8/7/2003	1:00:00	30.5	7.2	0.371	0.2	25.5	1.9	0.40
8/7/2003	1:15:00	30.4	7.2	0.372	0.2	23.3	1.8	0.40
8/7/2003	1:30:00	30.4	7.2	0.372	0.2	21.9	1.6	0.39
8/7/2003	1:45:00	30.4	7.2	0.372	0.2	20.0	1.5	0.40
8/7/2003	2:00:00	30.3	7.2	0.372	0.2	19.5	1.5	0.39
8/7/2003	2:15:00	30.3	7.1	0.372	0.2	18.0	1.4	0.40
8/7/2003	2:30:00	30.2	7.1	0.372	0.2	17.4	1.3	0.40
8/7/2003	2:45:00	30.2	7.1	0.372	0.2	15.9	1.2	0.40
8/7/2003	3:00:00	30.1	7.1	0.372	0.2	14.9	1.1	0.40
8/7/2003	3:15:00	30.1	7.1	0.372	0.2	14.4	1.1	0.40
8/7/2003	3:30:00	30.1	7.1	0.372	0.2	13.3	1.0	0.40
8/7/2003	3:45:00	30.0	7.1	0.372	0.2	12.4	0.9	0.41

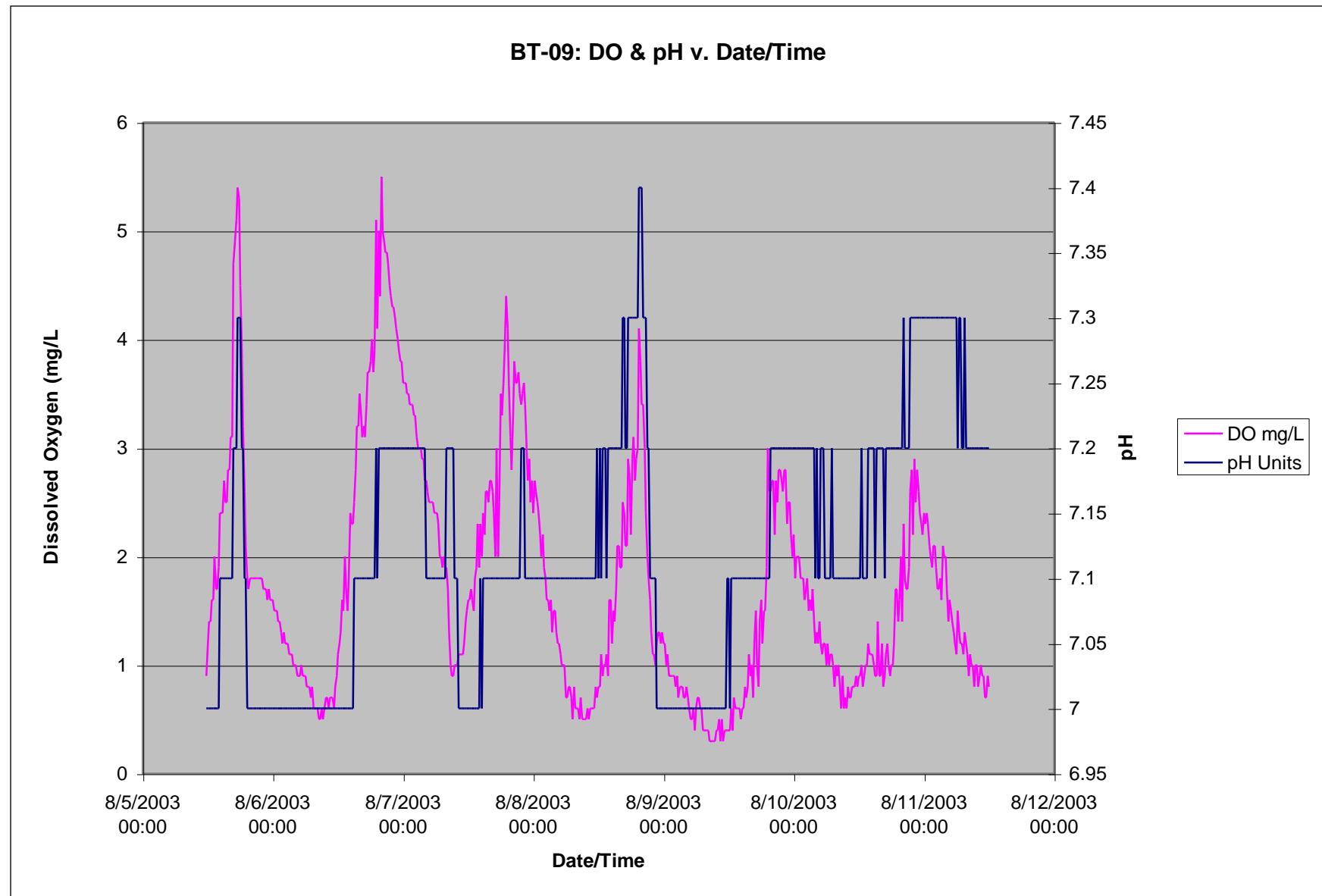
Bayou Terrebonne Watershed TMDL

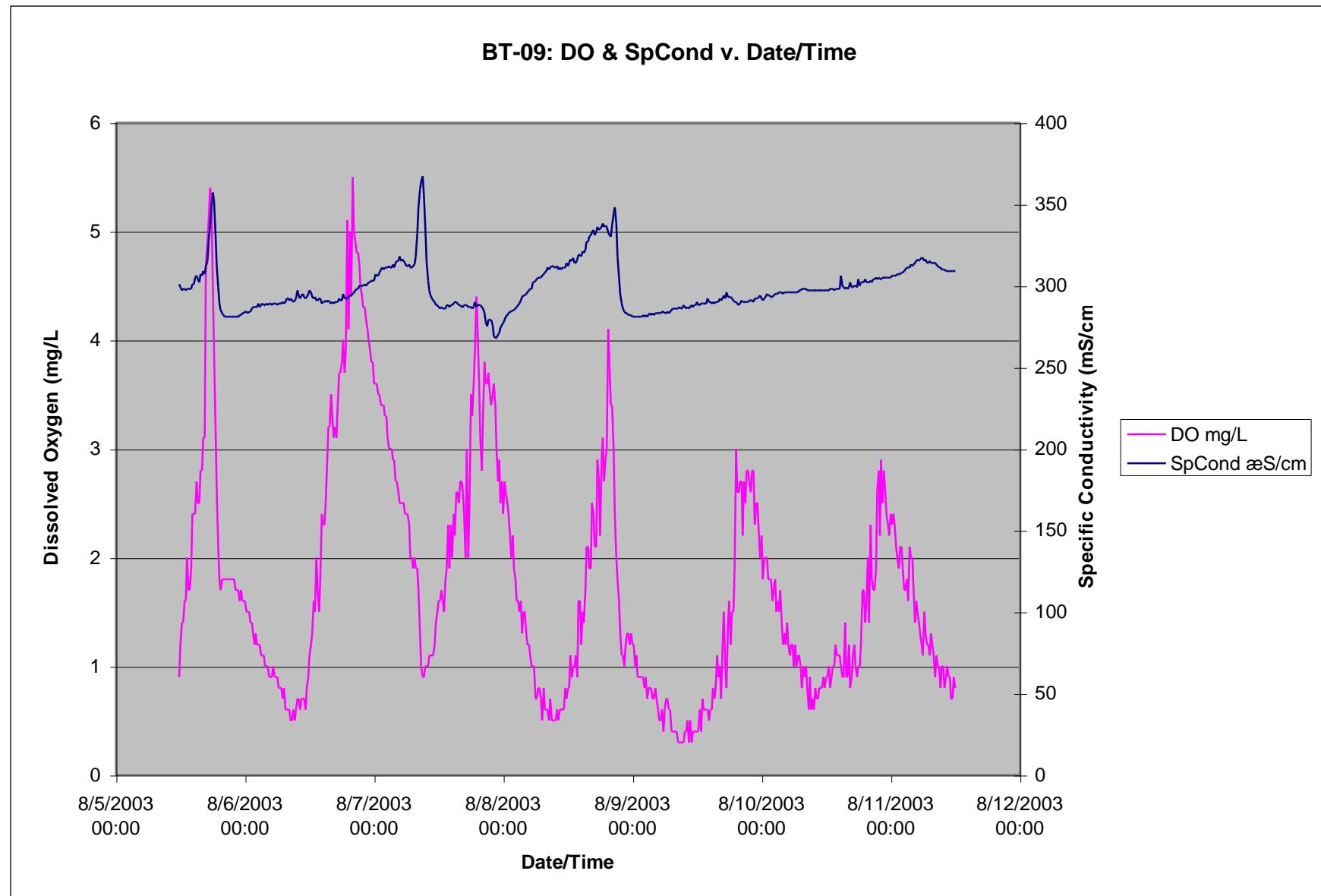
Subsegment 120301

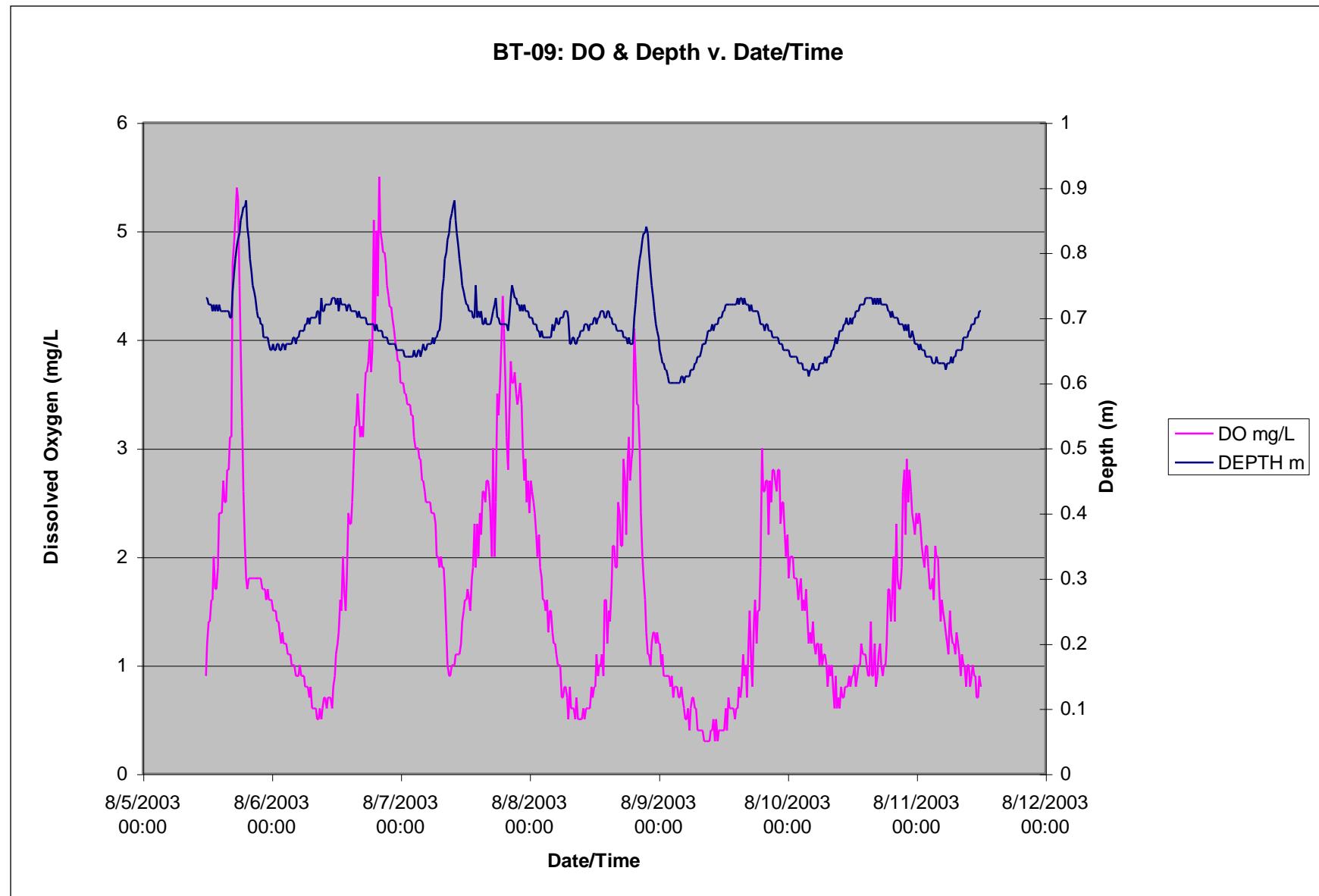
Originated: March 19, 2008

8/7/2003	4:00:00	30.0	7.1	0.373	0.2	11.4	0.9	0.41
8/7/2003	4:15:00	29.9	7.1	0.373	0.2	10.4	0.8	0.40
8/7/2003	4:30:00	29.9	7.1	0.373	0.2	10.1	0.8	0.41
8/7/2003	4:45:00	29.8	7.1	0.373	0.2	9.0	0.7	0.40
8/7/2003	5:00:00	29.8	7.1	0.373	0.2	8.6	0.7	0.41
8/7/2003	5:15:00	29.8	7.1	0.373	0.2	7.9	0.6	0.41
8/7/2003	5:30:00	29.7	7.1	0.373	0.2	7.4	0.6	0.42
8/7/2003	5:45:00	29.7	7.1	0.373	0.2	6.5	0.5	0.42
8/7/2003	6:00:00	29.7	7.1	0.373	0.2	5.8	0.4	0.42
8/7/2003	6:15:00	29.6	7.1	0.374	0.2	5.6	0.4	0.43
8/7/2003	6:30:00	29.6	7.1	0.374	0.2	4.9	0.4	0.42
8/7/2003	6:45:00	29.6	7.1	0.375	0.2	4.8	0.4	0.43
8/7/2003	7:00:00	29.5	7.1	0.374	0.2	5.0	0.4	0.43
8/7/2003	7:15:00	29.5	7.1	0.374	0.2	4.8	0.4	0.43
8/7/2003	7:30:00	29.5	7.1	0.374	0.2	4.2	0.3	0.51
8/7/2003	7:45:00	29.5	7.1	0.374	0.2	4.3	0.3	0.56
8/7/2003	8:00:00	29.5	7.1	0.374	0.2	3.0	0.2	0.58
8/7/2003	8:15:00	29.4	7.1	0.373	0.2	3.4	0.3	0.61
8/7/2003	8:30:00	29.4	7.1	0.373	0.2	3.0	0.2	0.63
8/7/2003	8:45:00	29.4	7.1	0.374	0.2	2.1	0.2	0.65
8/7/2003	9:00:00	29.4	7.1	0.373	0.2	2.6	0.2	0.66
8/7/2003	9:15:00	29.4	7.1	0.374	0.2	2.6	0.2	0.67
8/7/2003	9:30:00	29.4	7.1	0.374	0.2	2.9	0.2	0.68
8/7/2003	9:45:00	29.4	7.1	0.374	0.2	3.1	0.2	0.69









MiniSonde 4a 40005

Log File Name : BT-09

Setup Date (MMDDYY) : 080403

Setup Time (HHMMSS) : 130022

Starting Date (MMDDYY) : 080403

Starting Time (HHMMSS) : 131500

Stopping Date (MMDDYY) : 081203

Stopping Time (HHMMSS) : 235959

Interval (HHMMSS) : 001500

Sensor warmup (HHMMSS) : 000200

Circltr warmup (HHMMSS) : 000200

* D.O. values below 2.0 mg/l are not in manufacturers tolerances

Date MMDDYY	Time HHMMSS	Temp °C	SpCond µS/cm	Sal ppt	pH Units	DO mg/l	DO% Sat	Dep10 meters
8/5/2003	11:45	29.0	301	0.2	7.0	0.9	11.6	0.73
8/5/2003	12:00	29.1	299	0.1	7.0	1.2	15.9	0.73
8/5/2003	12:15	29.3	297	0.1	7.0	1.4	18.4	0.72
8/5/2003	12:30	29.3	298	0.1	7.0	1.4	18.6	0.72
8/5/2003	12:45	29.5	298	0.1	7.0	1.6	20.7	0.72
8/5/2003	13:00	29.4	297	0.1	7.0	1.6	21.0	0.71
8/5/2003	13:15	29.6	298	0.1	7.0	2.0	26.4	0.72
8/5/2003	13:30	29.6	298	0.1	7.0	1.7	22.2	0.71
8/5/2003	13:45	29.5	298	0.1	7.0	1.7	22.1	0.72
8/5/2003	14:00	29.6	298	0.1	7.0	1.9	25.0	0.71
8/5/2003	14:15	29.8	301	0.2	7.1	2.4	31.9	0.72
8/5/2003	14:30	29.9	301	0.2	7.1	2.4	31.8	0.71
8/5/2003	14:45	29.8	305	0.2	7.1	2.4	31.7	0.71

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	15:00	30.0	306	0.2	7.1	2.7	35.3	0.71
8/5/2003	15:15	30.0	304	0.2	7.1	2.5	33.0	0.71
8/5/2003	15:30	29.9	302	0.2	7.1	2.5	33.3	0.71
8/5/2003	15:45	30.1	307	0.2	7.1	2.8	37.6	0.71
8/5/2003	16:00	30.0	306	0.2	7.1	2.8	36.7	0.71
8/5/2003	16:15	30.2	309	0.2	7.1	3.1	40.5	0.70
8/5/2003	16:30	30.2	307	0.2	7.1	3.1	40.7	0.70
8/5/2003	16:45	31.1	312	0.2	7.2	4.7	63.2	0.74
8/5/2003	17:00	31.0	315	0.2	7.2	4.9	65.5	0.77
8/5/2003	17:15	31.1	327	0.2	7.2	5.1	69.4	0.79
8/5/2003	17:30	31.3	337	0.2	7.3	5.4	73.7	0.81
8/5/2003	17:45	31.3	348	0.2	7.3	5.3	71.6	0.82
8/5/2003	18:00	31.3	357	0.2	7.3	4.5	60.8	0.83
8/5/2003	18:15	31.3	352	0.2	7.2	3.9	52.1	0.85
8/5/2003	18:30	30.9	331	0.2	7.2	3.2	42.7	0.86
8/5/2003	18:45	30.5	312	0.2	7.1	2.6	34.2	0.87
8/5/2003	19:00	30.2	299	0.1	7.1	2.1	28.0	0.87
8/5/2003	19:15	30.1	289	0.1	7.0	1.8	24.4	0.88
8/5/2003	19:30	30.0	285	0.1	7.0	1.7	23.0	0.84
8/5/2003	19:45	30.0	283	0.1	7.0	1.8	23.3	0.82
8/5/2003	20:00	30.0	282	0.1	7.0	1.8	23.3	0.79
8/5/2003	20:15	30.0	281	0.1	7.0	1.8	23.4	0.77
8/5/2003	20:30	30.0	281	0.1	7.0	1.8	23.2	0.75
8/5/2003	20:45	30.0	281	0.1	7.0	1.8	23.5	0.74
8/5/2003	21:00	30.0	281	0.1	7.0	1.8	23.6	0.73
8/5/2003	21:15	30.0	281	0.1	7.0	1.8	24.0	0.71
8/5/2003	21:30	30.0	281	0.1	7.0	1.8	24.2	0.70
8/5/2003	21:45	30.0	281	0.1	7.0	1.8	23.5	0.70
8/5/2003	22:00	29.9	281	0.1	7.0	1.8	23.8	0.69
8/5/2003	22:15	29.9	281	0.1	7.0	1.7	23.1	0.69
8/5/2003	22:30	29.9	281	0.1	7.0	1.7	22.9	0.67

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	22:45	29.9	281	0.1	7.0	1.7	22.9	0.67
8/5/2003	23:00	29.9	282	0.1	7.0	1.6	21.6	0.67
8/5/2003	23:15	29.9	282	0.1	7.0	1.7	22.0	0.67
8/5/2003	23:30	29.8	283	0.1	7.0	1.6	21.0	0.66
8/5/2003	23:45	29.8	283	0.1	7.0	1.6	21.4	0.65
8/6/2003	0:00	29.8	284	0.1	7.0	1.6	20.7	0.65
8/6/2003	0:15	29.8	284	0.1	7.0	1.5	20.4	0.66
8/6/2003	0:30	29.8	283	0.1	7.0	1.5	19.6	0.65
8/6/2003	0:45	29.7	284	0.1	7.0	1.5	19.5	0.65
8/6/2003	1:00	29.7	284	0.1	7.0	1.4	17.8	0.66
8/6/2003	1:15	29.7	286	0.1	7.0	1.4	18.0	0.66
8/6/2003	1:30	29.6	287	0.1	7.0	1.3	17.0	0.65
8/6/2003	1:45	29.6	287	0.1	7.0	1.2	16.3	0.65
8/6/2003	2:00	29.6	287	0.1	7.0	1.3	16.5	0.66
8/6/2003	2:15	29.6	287	0.1	7.0	1.2	16.0	0.66
8/6/2003	2:30	29.5	289	0.1	7.0	1.2	15.8	0.65
8/6/2003	2:45	29.5	287	0.1	7.0	1.2	15.8	0.66
8/6/2003	3:00	29.5	288	0.1	7.0	1.1	15.0	0.66
8/6/2003	3:15	29.5	289	0.1	7.0	1.1	14.7	0.66
8/6/2003	3:30	29.4	288	0.1	7.0	1.1	14.6	0.66
8/6/2003	3:45	29.4	288	0.1	7.0	1.0	13.5	0.66
8/6/2003	4:00	29.4	289	0.1	7.0	1.0	13.3	0.67
8/6/2003	4:15	29.4	288	0.1	7.0	1.0	13.1	0.67
8/6/2003	4:30	29.4	289	0.1	7.0	0.9	11.5	0.66
8/6/2003	4:45	29.4	289	0.1	7.0	0.9	12.0	0.67
8/6/2003	5:00	29.3	288	0.1	7.0	0.9	12.3	0.67
8/6/2003	5:15	29.3	289	0.1	7.0	1.0	12.9	0.68
8/6/2003	5:30	29.3	289	0.1	7.0	0.9	11.7	0.68
8/6/2003	5:45	29.3	289	0.1	7.0	0.9	11.6	0.68
8/6/2003	6:00	29.3	288	0.1	7.0	0.9	11.2	0.68
8/6/2003	6:15	29.3	289	0.1	7.0	0.8	10.8	0.69

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	6:30	29.3	289	0.1	7.0	0.8	10.9	0.69
8/6/2003	6:45	29.2	289	0.1	7.0	0.8	10.2	0.70
8/6/2003	7:00	29.2	290	0.1	7.0	0.7	9.0	0.69
8/6/2003	7:15	29.2	289	0.1	7.0	0.8	9.8	0.70
8/6/2003	7:30	29.2	290	0.1	7.0	0.6	8.4	0.70
8/6/2003	7:45	29.2	292	0.1	7.0	0.6	8.1	0.70
8/6/2003	8:00	29.1	292	0.1	7.0	0.6	8.2	0.70
8/6/2003	8:15	29.2	291	0.1	7.0	0.6	7.7	0.70
8/6/2003	8:30	29.1	292	0.1	7.0	0.5	7.0	0.71
8/6/2003	8:45	29.1	291	0.1	7.0	0.5	6.6	0.71
8/6/2003	9:00	29.2	290	0.1	7.0	0.6	7.3	0.69
8/6/2003	9:15	29.2	291	0.1	7.0	0.5	6.7	0.73
8/6/2003	9:30	29.2	292	0.1	7.0	0.6	7.6	0.71
8/6/2003	9:45	29.2	297	0.1	7.0	0.7	9.3	0.71
8/6/2003	10:00	29.2	294	0.1	7.0	0.7	9.0	0.72
8/6/2003	10:15	29.2	292	0.1	7.0	0.6	7.7	0.72
8/6/2003	10:30	29.3	294	0.1	7.0	0.7	9.7	0.72
8/6/2003	10:45	29.3	295	0.1	7.0	0.7	8.7	0.72
8/6/2003	11:00	29.3	293	0.1	7.0	0.7	8.7	0.72
8/6/2003	11:15	29.3	292	0.1	7.0	0.6	7.7	0.73
8/6/2003	11:30	29.4	293	0.1	7.0	0.8	9.8	0.73
8/6/2003	11:45	29.4	295	0.1	7.0	0.9	11.7	0.73
8/6/2003	12:00	29.5	297	0.1	7.0	1.1	14.8	0.72
8/6/2003	12:15	29.5	296	0.1	7.0	1.2	16.0	0.73
8/6/2003	12:30	29.6	293	0.1	7.0	1.3	17.4	0.71
8/6/2003	12:45	29.6	292	0.1	7.0	1.6	20.8	0.73
8/6/2003	13:00	29.7	293	0.1	7.0	1.5	19.4	0.72
8/6/2003	13:15	29.8	291	0.1	7.0	2.0	26.2	0.72
8/6/2003	13:30	29.8	291	0.1	7.0	1.7	22.1	0.72
8/6/2003	13:45	29.8	292	0.1	7.0	1.5	20.0	0.72
8/6/2003	14:00	29.9	292	0.1	7.0	1.8	24.2	0.71

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	14:15	30.0	289	0.1	7.0	2.4	31.2	0.72
8/6/2003	14:30	30.0	290	0.1	7.0	2.3	31.0	0.72
8/6/2003	14:45	30.0	290	0.1	7.0	2.3	30.8	0.71
8/6/2003	15:00	30.2	291	0.1	7.1	2.5	33.7	0.71
8/6/2003	15:15	30.2	290	0.1	7.1	2.8	36.6	0.71
8/6/2003	15:30	30.4	291	0.1	7.1	3.2	42.7	0.71
8/6/2003	15:45	30.3	290	0.1	7.1	3.2	42.3	0.71
8/6/2003	16:00	30.5	289	0.1	7.1	3.5	46.5	0.70
8/6/2003	16:15	30.4	290	0.1	7.1	3.3	44.2	0.71
8/6/2003	16:30	30.4	289	0.1	7.1	3.1	41.4	0.70
8/6/2003	16:45	30.5	290	0.1	7.1	3.2	43.3	0.70
8/6/2003	17:00	30.5	290	0.1	7.1	3.1	40.7	0.70
8/6/2003	17:15	30.6	290	0.1	7.1	3.4	45.1	0.70
8/6/2003	17:30	30.7	292	0.1	7.1	3.7	49.5	0.70
8/6/2003	17:45	30.7	291	0.1	7.1	3.7	49.7	0.69
8/6/2003	18:00	30.7	291	0.1	7.1	3.8	51.5	0.69
8/6/2003	18:15	30.8	295	0.1	7.1	4.0	53.6	0.69
8/6/2003	18:30	30.7	292	0.1	7.1	3.7	49.3	0.69
8/6/2003	18:45	30.8	292	0.1	7.1	3.9	52.9	0.69
8/6/2003	19:00	31.0	292	0.1	7.2	5.1	68.2	0.69
8/6/2003	19:15	30.8	293	0.1	7.1	4.1	55.6	0.68
8/6/2003	19:30	30.9	294	0.1	7.2	5.0	66.6	0.69
8/6/2003	19:45	30.8	294	0.1	7.2	4.4	59.7	0.68
8/6/2003	20:00	30.9	295	0.1	7.2	5.5	73.6	0.68
8/6/2003	20:15	30.8	296	0.1	7.2	5.0	67.3	0.68
8/6/2003	20:30	30.8	297	0.1	7.2	4.9	65.3	0.68
8/6/2003	20:45	30.8	298	0.1	7.2	4.8	64.2	0.67
8/6/2003	21:00	30.7	298	0.1	7.2	4.8	63.8	0.67
8/6/2003	21:15	30.7	300	0.2	7.2	4.7	62.3	0.67
8/6/2003	21:30	30.6	300	0.2	7.2	4.5	60.3	0.67
8/6/2003	21:45	30.6	300	0.2	7.2	4.4	58.6	0.66

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	22:00	30.6	300	0.2	7.2	4.3	56.8	0.66
8/6/2003	22:15	30.6	301	0.2	7.2	4.3	57.4	0.66
8/6/2003	22:30	30.5	300	0.2	7.2	4.2	55.8	0.66
8/6/2003	22:45	30.5	301	0.2	7.2	4.1	54.3	0.66
8/6/2003	23:00	30.5	302	0.2	7.2	4.0	53.7	0.66
8/6/2003	23:15	30.4	302	0.2	7.2	3.9	51.8	0.65
8/6/2003	23:30	30.4	303	0.2	7.2	3.8	51.2	0.65
8/6/2003	23:45	30.3	303	0.2	7.2	3.8	50.0	0.65
8/7/2003	0:00	30.3	303	0.2	7.2	3.6	48.1	0.65
8/7/2003	0:15	30.3	307	0.2	7.2	3.6	48.1	0.65
8/7/2003	0:30	30.2	306	0.2	7.2	3.6	47.2	0.65
8/7/2003	0:45	30.2	306	0.2	7.2	3.5	46.7	0.64
8/7/2003	1:00	30.2	308	0.2	7.2	3.5	46.9	0.64
8/7/2003	1:15	30.2	310	0.2	7.2	3.4	45.7	0.64
8/7/2003	1:30	30.2	311	0.2	7.2	3.4	45.5	0.64
8/7/2003	1:45	30.2	310	0.2	7.2	3.4	44.8	0.64
8/7/2003	2:00	30.1	311	0.2	7.2	3.3	43.6	0.64
8/7/2003	2:15	30.1	311	0.2	7.2	3.3	43.2	0.64
8/7/2003	2:30	30.1	311	0.2	7.2	3.1	40.8	0.65
8/7/2003	2:45	30.1	312	0.2	7.2	3.0	40.1	0.64
8/7/2003	3:00	30.0	311	0.2	7.2	3.0	39.4	0.64
8/7/2003	3:15	30.0	311	0.2	7.2	3.0	39.6	0.65
8/7/2003	3:30	30.0	313	0.2	7.2	2.9	38.3	0.65
8/7/2003	3:45	29.9	311	0.2	7.2	2.9	38.2	0.64
8/7/2003	4:00	29.9	314	0.2	7.2	2.7	35.9	0.65
8/7/2003	4:15	29.9	315	0.2	7.1	2.7	35.2	0.66
8/7/2003	4:30	29.8	315	0.2	7.1	2.6	34.2	0.65
8/7/2003	4:45	29.8	318	0.2	7.1	2.5	33.3	0.65
8/7/2003	5:00	29.8	315	0.2	7.1	2.5	33.1	0.66
8/7/2003	5:15	29.8	316	0.2	7.1	2.5	32.8	0.66
8/7/2003	5:30	29.8	315	0.2	7.1	2.5	32.4	0.66

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/7/2003	5:45	29.7	314	0.2	7.1	2.4	31.9	0.66
8/7/2003	6:00	29.7	312	0.2	7.1	2.4	31.1	0.67
8/7/2003	6:15	29.7	312	0.2	7.1	2.4	30.9	0.66
8/7/2003	6:30	29.7	313	0.2	7.1	2.3	30.2	0.67
8/7/2003	6:45	29.7	311	0.2	7.1	2.0	25.8	0.67
8/7/2003	7:00	29.7	311	0.2	7.1	2.0	26.7	0.68
8/7/2003	7:15	29.7	312	0.2	7.1	1.9	25.3	0.68
8/7/2003	7:30	29.6	313	0.2	7.1	2.0	25.7	0.70
8/7/2003	7:45	29.6	318	0.2	7.1	1.9	25.1	0.74
8/7/2003	8:00	29.5	332	0.2	7.2	1.9	24.9	0.76
8/7/2003	8:15	29.6	348	0.2	7.2	1.7	22.2	0.79
8/7/2003	8:30	29.5	359	0.2	7.2	1.3	17.0	0.80
8/7/2003	8:45	29.6	364	0.2	7.2	1.0	13.0	0.82
8/7/2003	9:00	29.6	367	0.2	7.2	0.9	11.5	0.83
8/7/2003	9:15	29.5	356	0.2	7.2	0.9	12.0	0.85
8/7/2003	9:30	29.4	334	0.2	7.1	1.0	12.6	0.86
8/7/2003	9:45	29.4	315	0.2	7.1	1.0	13.2	0.87
8/7/2003	10:00	29.4	303	0.2	7.1	1.0	13.0	0.88
8/7/2003	10:15	29.4	297	0.1	7.0	1.1	14.0	0.85
8/7/2003	10:30	29.4	294	0.1	7.0	1.1	14.6	0.83
8/7/2003	10:45	29.5	292	0.1	7.0	1.1	15.0	0.81
8/7/2003	11:00	29.5	291	0.1	7.0	1.1	14.6	0.79
8/7/2003	11:15	29.6	290	0.1	7.0	1.2	16.0	0.77
8/7/2003	11:30	29.7	288	0.1	7.0	1.4	18.7	0.75
8/7/2003	11:45	29.7	288	0.1	7.0	1.5	19.3	0.74
8/7/2003	12:00	29.8	287	0.1	7.0	1.6	20.8	0.73
8/7/2003	12:15	29.8	286	0.1	7.0	1.6	20.9	0.72
8/7/2003	12:30	29.9	287	0.1	7.0	1.7	22.0	0.72
8/7/2003	12:45	29.9	286	0.1	7.0	1.6	20.9	0.71
8/7/2003	13:00	29.9	286	0.1	7.0	1.5	20.0	0.71
8/7/2003	13:15	30.0	286	0.1	7.0	1.8	24.2	0.71

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/7/2003	13:30	30.1	288	0.1	7.0	1.9	25.6	0.70
8/7/2003	13:45	30.2	288	0.1	7.0	2.3	31.0	0.70
8/7/2003	14:00	30.1	287	0.1	7.0	1.9	25.0	0.75
8/7/2003	14:15	30.2	288	0.1	7.1	2.3	30.2	0.70
8/7/2003	14:30	30.1	288	0.1	7.0	2.0	26.3	0.71
8/7/2003	14:45	30.2	289	0.1	7.1	2.4	31.3	0.70
8/7/2003	15:00	30.2	290	0.1	7.1	2.2	29.2	0.71
8/7/2003	15:15	30.2	290	0.1	7.1	2.6	35.1	0.69
8/7/2003	15:30	30.3	289	0.1	7.1	2.6	34.4	0.69
8/7/2003	15:45	30.4	288	0.1	7.1	2.5	33.2	0.70
8/7/2003	16:00	30.4	288	0.1	7.1	2.7	36.5	0.69
8/7/2003	16:15	30.4	287	0.1	7.1	2.7	35.3	0.69
8/7/2003	16:30	30.5	287	0.1	7.1	2.6	34.7	0.69
8/7/2003	16:45	30.4	288	0.1	7.1	2.4	32.5	0.69
8/7/2003	17:00	30.4	288	0.1	7.1	2.0	26.8	0.70
8/7/2003	17:15	30.6	288	0.1	7.1	3.0	39.7	0.71
8/7/2003	17:30	30.6	287	0.1	7.1	2.0	27.2	0.72
8/7/2003	17:45	30.5	287	0.1	7.1	2.5	33.0	0.73
8/7/2003	18:00	30.6	287	0.1	7.1	3.5	46.5	0.70
8/7/2003	18:15	30.6	286	0.1	7.1	3.3	43.9	0.70
8/7/2003	18:30	30.7	287	0.1	7.1	3.6	48.8	0.69
8/7/2003	18:45	30.6	290	0.1	7.1	3.9	51.6	0.69
8/7/2003	19:00	30.6	287	0.1	7.1	4.4	58.3	0.69
8/7/2003	19:15	30.6	288	0.1	7.1	4.1	55.0	0.69
8/7/2003	19:30	30.6	288	0.1	7.1	3.6	48.0	0.69
8/7/2003	19:45	30.6	288	0.1	7.1	3.1	41.0	0.69
8/7/2003	20:00	30.6	287	0.1	7.1	2.8	36.9	0.68
8/7/2003	20:15	30.5	286	0.1	7.1	3.3	44.5	0.70
8/7/2003	20:30	30.4	283	0.1	7.1	3.8	50.3	0.73
8/7/2003	20:45	30.3	278	0.1	7.1	3.6	47.3	0.75
8/7/2003	21:00	30.3	275	0.1	7.1	3.6	47.5	0.74

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/7/2003	21:15	30.3	279	0.1	7.1	3.7	49.6	0.73
8/7/2003	21:30	30.3	279	0.1	7.1	3.5	47.0	0.73
8/7/2003	21:45	30.3	279	0.1	7.2	3.4	44.6	0.72
8/7/2003	22:00	30.3	276	0.1	7.2	3.5	47.1	0.72
8/7/2003	22:15	30.2	269	0.1	7.2	3.6	47.4	0.71
8/7/2003	22:30	30.2	268	0.1	7.1	3.4	44.5	0.72
8/7/2003	22:45	30.1	268	0.1	7.1	3.0	39.9	0.71
8/7/2003	23:00	30.1	270	0.1	7.1	2.7	35.2	0.72
8/7/2003	23:15	30.0	271	0.1	7.1	2.9	37.8	0.71
8/7/2003	23:30	30.0	274	0.1	7.1	2.5	32.5	0.71
8/7/2003	23:45	30.0	276	0.1	7.1	2.7	35.8	0.71
8/8/2003	0:00	30.0	277	0.1	7.1	2.4	31.4	0.70
8/8/2003	0:15	30.0	279	0.1	7.1	2.7	35.9	0.70
8/8/2003	0:30	29.9	281	0.1	7.1	2.6	34.4	0.70
8/8/2003	0:45	29.9	282	0.1	7.1	2.5	33.4	0.69
8/8/2003	1:00	29.9	283	0.1	7.1	2.4	32.0	0.69
8/8/2003	1:15	29.8	284	0.1	7.1	2.2	29.1	0.69
8/8/2003	1:30	29.8	284	0.1	7.1	2.0	26.1	0.68
8/8/2003	1:45	29.8	285	0.1	7.1	2.2	28.5	0.68
8/8/2003	2:00	29.7	285	0.1	7.1	1.9	25.6	0.67
8/8/2003	2:15	29.7	286	0.1	7.1	1.8	23.7	0.68
8/8/2003	2:30	29.6	287	0.1	7.1	1.6	21.3	0.67
8/8/2003	2:45	29.6	288	0.1	7.1	1.6	20.7	0.67
8/8/2003	3:00	29.6	289	0.1	7.1	1.5	19.7	0.67
8/8/2003	3:15	29.5	291	0.1	7.1	1.6	21.4	0.67
8/8/2003	3:30	29.5	293	0.1	7.1	1.3	17.2	0.67
8/8/2003	3:45	29.4	294	0.1	7.1	1.5	19.9	0.67
8/8/2003	4:00	29.4	294	0.1	7.1	1.5	19.9	0.67
8/8/2003	4:15	29.4	295	0.1	7.1	1.3	17.5	0.69
8/8/2003	4:30	29.4	296	0.1	7.1	1.2	15.8	0.68
8/8/2003	4:45	29.3	297	0.1	7.1	1.2	15.3	0.69

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/8/2003	5:00	29.3	298	0.1	7.1	1.1	14.2	0.70
8/8/2003	5:15	29.3	298	0.1	7.1	1.0	12.4	0.69
8/8/2003	5:30	29.2	302	0.2	7.1	1.0	13.6	0.69
8/8/2003	5:45	29.1	302	0.2	7.1	1.0	12.6	0.70
8/8/2003	6:00	29.2	303	0.2	7.1	0.7	9.4	0.70
8/8/2003	6:15	29.1	304	0.2	7.1	0.7	9.5	0.70
8/8/2003	6:30	29.1	305	0.2	7.1	0.8	10.2	0.71
8/8/2003	6:45	29.0	305	0.2	7.1	0.8	10.6	0.71
8/8/2003	7:00	29.0	305	0.2	7.1	0.7	9.0	0.71
8/8/2003	7:15	29.0	306	0.2	7.1	0.5	7.0	0.70
8/8/2003	7:30	28.9	307	0.2	7.1	0.8	9.7	0.66
8/8/2003	7:45	28.9	308	0.2	7.1	0.6	8.0	0.66
8/8/2003	8:00	28.9	309	0.2	7.1	0.6	7.8	0.67
8/8/2003	8:15	28.9	311	0.2	7.1	0.6	7.5	0.67
8/8/2003	8:30	28.9	310	0.2	7.1	0.5	6.6	0.66
8/8/2003	8:45	28.9	311	0.2	7.1	0.7	8.5	0.66
8/8/2003	9:00	28.9	312	0.2	7.1	0.5	6.6	0.67
8/8/2003	9:15	28.9	312	0.2	7.1	0.5	6.7	0.67
8/8/2003	9:30	28.9	311	0.2	7.1	0.5	6.8	0.68
8/8/2003	9:45	28.9	311	0.2	7.1	0.5	6.3	0.68
8/8/2003	10:00	29.0	312	0.2	7.1	0.6	7.6	0.68
8/8/2003	10:15	29.0	310	0.2	7.1	0.5	6.8	0.69
8/8/2003	10:30	29.0	311	0.2	7.1	0.6	8.4	0.69
8/8/2003	10:45	29.0	310	0.2	7.1	0.6	7.3	0.69
8/8/2003	11:00	29.1	311	0.2	7.1	0.6	8.2	0.68
8/8/2003	11:15	29.1	311	0.2	7.1	0.6	8.4	0.69
8/8/2003	11:30	29.1	311	0.2	7.1	0.8	9.8	0.69
8/8/2003	11:45	29.3	314	0.2	7.2	0.7	9.6	0.69
8/8/2003	12:00	29.3	312	0.2	7.1	0.8	10.3	0.70
8/8/2003	12:15	29.4	314	0.2	7.2	0.8	11.1	0.70
8/8/2003	12:30	29.4	316	0.2	7.1	1.1	14.1	0.69

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/8/2003	12:45	29.4	315	0.2	7.2	0.9	12.1	0.70
8/8/2003	13:00	29.5	317	0.2	7.2	1.0	13.3	0.70
8/8/2003	13:15	29.5	314	0.2	7.2	1.0	13.6	0.71
8/8/2003	13:30	29.5	314	0.2	7.1	1.1	13.7	0.71
8/8/2003	13:45	29.5	316	0.2	7.2	0.9	12.4	0.71
8/8/2003	14:00	29.8	319	0.2	7.2	1.6	21.1	0.70
8/8/2003	14:15	29.8	319	0.2	7.2	1.6	21.0	0.70
8/8/2003	14:30	29.7	318	0.2	7.2	1.2	15.2	0.71
8/8/2003	14:45	29.8	321	0.2	7.2	1.5	19.4	0.71
8/8/2003	15:00	29.9	320	0.2	7.2	1.4	18.5	0.70
8/8/2003	15:15	29.9	322	0.2	7.2	1.7	22.4	0.70
8/8/2003	15:30	30.1	327	0.2	7.2	2.1	27.9	0.69
8/8/2003	15:45	30.1	327	0.2	7.2	2.1	27.2	0.69
8/8/2003	16:00	30.2	330	0.2	7.2	1.9	25.7	0.69
8/8/2003	16:15	30.3	331	0.2	7.2	1.9	25.1	0.68
8/8/2003	16:30	30.3	333	0.2	7.3	2.5	32.8	0.68
8/8/2003	16:45	30.5	334	0.2	7.3	2.4	31.8	0.68
8/8/2003	17:00	30.3	331	0.2	7.2	2.1	27.8	0.68
8/8/2003	17:15	30.4	333	0.2	7.2	2.1	27.5	0.68
8/8/2003	17:30	30.5	336	0.2	7.3	2.9	38.2	0.67
8/8/2003	17:45	30.6	334	0.2	7.3	2.7	35.8	0.67
8/8/2003	18:00	30.5	335	0.2	7.3	2.2	30.0	0.67
8/8/2003	18:15	30.7	336	0.2	7.3	2.9	39.2	0.66
8/8/2003	18:30	30.7	338	0.2	7.3	3.1	42.1	0.67
8/8/2003	18:45	30.5	336	0.2	7.3	2.7	35.4	0.66
8/8/2003	19:00	30.6	337	0.2	7.3	2.9	39.1	0.66
8/8/2003	19:15	30.6	336	0.2	7.3	3.0	40.3	0.66
8/8/2003	19:30	30.7	333	0.2	7.4	4.1	55.3	0.70
8/8/2003	19:45	30.7	331	0.2	7.4	3.8	50.9	0.72
8/8/2003	20:00	30.7	330	0.2	7.4	3.4	45.3	0.75
8/8/2003	20:15	30.7	337	0.2	7.3	3.4	46.1	0.77

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/8/2003	20:30	30.8	344	0.2	7.3	3.0	40.2	0.79
8/8/2003	20:45	30.7	348	0.2	7.3	2.4	31.6	0.80
8/8/2003	21:00	30.5	338	0.2	7.2	2.0	26.6	0.82
8/8/2003	21:15	30.2	318	0.2	7.2	1.8	24.1	0.83
8/8/2003	21:30	30.0	305	0.2	7.1	1.6	20.8	0.83
8/8/2003	21:45	29.8	295	0.1	7.1	1.3	17.4	0.84
8/8/2003	22:00	29.8	289	0.1	7.1	1.1	14.9	0.83
8/8/2003	22:15	29.8	286	0.1	7.1	1.1	14.1	0.80
8/8/2003	22:30	29.8	284	0.1	7.1	1.0	13.4	0.77
8/8/2003	22:45	29.8	283	0.1	7.0	1.2	15.9	0.75
8/8/2003	23:00	29.8	283	0.1	7.0	1.3	17.4	0.73
8/8/2003	23:15	29.7	282	0.1	7.0	1.3	16.6	0.71
8/8/2003	23:30	29.7	282	0.1	7.0	1.2	15.9	0.69
8/8/2003	23:45	29.7	282	0.1	7.0	1.3	16.9	0.68
8/9/2003	0:00	29.7	281	0.1	7.0	1.2	16.0	0.67
8/9/2003	0:15	29.7	281	0.1	7.0	1.2	15.6	0.65
8/9/2003	0:30	29.6	281	0.1	7.0	1.0	13.5	0.64
8/9/2003	0:45	29.6	281	0.1	7.0	1.1	14.4	0.63
8/9/2003	1:00	29.6	281	0.1	7.0	0.9	12.4	0.63
8/9/2003	1:15	29.5	281	0.1	7.0	0.9	11.6	0.62
8/9/2003	1:30	29.5	281	0.1	7.0	0.9	11.8	0.62
8/9/2003	1:45	29.5	281	0.1	7.0	0.9	12.4	0.61
8/9/2003	2:00	29.4	282	0.1	7.0	0.9	11.7	0.60
8/9/2003	2:15	29.4	281	0.1	7.0	0.8	11.1	0.60
8/9/2003	2:30	29.4	282	0.1	7.0	0.9	11.7	0.60
8/9/2003	2:45	29.3	281	0.1	7.0	0.7	9.5	0.60
8/9/2003	3:00	29.3	282	0.1	7.0	0.8	10.0	0.60
8/9/2003	3:15	29.2	283	0.1	7.0	0.8	10.3	0.60
8/9/2003	3:30	29.2	282	0.1	7.0	0.8	10.5	0.60
8/9/2003	3:45	29.2	283	0.1	7.0	0.7	9.4	0.60
8/9/2003	4:00	29.2	282	0.1	7.0	0.7	9.0	0.60

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/9/2003	4:15	29.1	283	0.1	7.0	0.8	10.0	0.61
8/9/2003	4:30	29.1	283	0.1	7.0	0.7	9.0	0.61
8/9/2003	4:45	29.1	283	0.1	7.0	0.6	7.8	0.60
8/9/2003	5:00	29.0	283	0.1	7.0	0.5	6.7	0.61
8/9/2003	5:15	29.0	283	0.1	7.0	0.5	6.9	0.61
8/9/2003	5:30	29.0	284	0.1	7.0	0.6	7.4	0.61
8/9/2003	5:45	28.9	284	0.1	7.0	0.4	5.7	0.61
8/9/2003	6:00	28.9	283	0.1	7.0	0.6	8.0	0.62
8/9/2003	6:15	28.8	283	0.1	7.0	0.7	9.0	0.62
8/9/2003	6:30	28.8	284	0.1	7.0	0.7	8.4	0.62
8/9/2003	6:45	28.8	283	0.1	7.0	0.6	7.3	0.63
8/9/2003	7:00	28.8	284	0.1	7.0	0.6	7.3	0.63
8/9/2003	7:15	28.8	285	0.1	7.0	0.4	5.6	0.64
8/9/2003	7:30	28.8	286	0.1	7.0	0.4	5.2	0.64
8/9/2003	7:45	28.7	286	0.1	7.0	0.4	5.1	0.64
8/9/2003	8:00	28.7	286	0.1	7.0	0.4	4.9	0.65
8/9/2003	8:15	28.7	286	0.1	7.0	0.4	5.2	0.66
8/9/2003	8:30	28.7	286	0.1	7.0	0.3	3.9	0.66
8/9/2003	8:45	28.7	287	0.1	7.0	0.3	3.8	0.66
8/9/2003	9:00	28.7	286	0.1	7.0	0.3	4.0	0.67
8/9/2003	9:15	28.7	286	0.1	7.0	0.3	3.8	0.68
8/9/2003	9:30	28.7	288	0.1	7.0	0.3	3.8	0.68
8/9/2003	9:45	28.7	287	0.1	7.0	0.4	4.5	0.68
8/9/2003	10:00	28.7	286	0.1	7.0	0.4	5.0	0.69
8/9/2003	10:15	28.8	287	0.1	7.0	0.5	6.1	0.68
8/9/2003	10:30	28.8	286	0.1	7.0	0.3	4.1	0.69
8/9/2003	10:45	28.8	287	0.1	7.0	0.5	6.2	0.69
8/9/2003	11:00	28.9	288	0.1	7.0	0.3	4.0	0.69
8/9/2003	11:15	28.9	287	0.1	7.0	0.4	4.6	0.70
8/9/2003	11:30	28.9	288	0.1	7.0	0.4	4.6	0.70
8/9/2003	11:45	28.9	288	0.1	7.1	0.4	5.1	0.70

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/9/2003	12:00	29.0	290	0.1	7.1	0.4	5.1	0.71
8/9/2003	12:15	29.0	288	0.1	7.0	0.4	4.8	0.71
8/9/2003	12:30	29.1	288	0.1	7.1	0.6	7.3	0.72
8/9/2003	12:45	29.1	289	0.1	7.1	0.4	5.1	0.72
8/9/2003	13:00	29.2	289	0.1	7.1	0.7	9.2	0.72
8/9/2003	13:15	29.2	289	0.1	7.1	0.6	7.2	0.72
8/9/2003	13:30	29.2	289	0.1	7.1	0.6	7.3	0.72
8/9/2003	13:45	29.2	289	0.1	7.1	0.6	7.9	0.72
8/9/2003	14:00	29.3	292	0.1	7.1	0.6	7.4	0.72
8/9/2003	14:15	29.4	290	0.1	7.1	0.5	6.0	0.72
8/9/2003	14:30	29.3	290	0.1	7.1	0.6	7.5	0.72
8/9/2003	14:45	29.4	289	0.1	7.1	0.6	8.2	0.73
8/9/2003	15:00	29.5	290	0.1	7.1	0.8	10.3	0.72
8/9/2003	15:15	29.5	289	0.1	7.1	0.7	8.9	0.73
8/9/2003	15:30	29.6	290	0.1	7.1	0.8	10.1	0.73
8/9/2003	15:45	29.6	290	0.1	7.1	1.1	13.9	0.72
8/9/2003	16:00	29.6	290	0.1	7.1	0.9	11.6	0.73
8/9/2003	16:15	29.7	292	0.1	7.1	1.0	12.9	0.72
8/9/2003	16:30	29.6	291	0.1	7.1	0.7	8.6	0.72
8/9/2003	16:45	29.7	292	0.1	7.1	1.2	15.2	0.72
8/9/2003	17:00	29.9	294	0.1	7.1	1.5	19.4	0.71
8/9/2003	17:15	29.7	292	0.1	7.1	1.0	12.8	0.72
8/9/2003	17:30	29.8	296	0.1	7.1	0.8	11.1	0.71
8/9/2003	17:45	29.9	293	0.1	7.1	1.4	19.1	0.71
8/9/2003	18:00	30.1	293	0.1	7.1	1.6	21.1	0.71
8/9/2003	18:15	30.0	293	0.1	7.1	1.2	15.7	0.71
8/9/2003	18:30	29.9	292	0.1	7.1	1.5	20.0	0.71
8/9/2003	18:45	30.0	291	0.1	7.1	1.5	20.5	0.70
8/9/2003	19:00	30.0	290	0.1	7.1	1.9	25.5	0.69
8/9/2003	19:15	30.1	290	0.1	7.1	3.0	39.3	0.69
8/9/2003	19:30	30.1	289	0.1	7.1	2.6	35.1	0.69

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/9/2003	19:45	30.4	288	0.1	7.2	2.6	34.4	0.68
8/9/2003	20:00	30.3	289	0.1	7.2	2.7	35.3	0.69
8/9/2003	20:15	30.3	291	0.1	7.2	2.7	35.3	0.69
8/9/2003	20:30	30.2	290	0.1	7.2	2.2	29.3	0.68
8/9/2003	20:45	30.2	290	0.1	7.2	2.7	35.4	0.68
8/9/2003	21:00	30.2	290	0.1	7.2	2.5	33.6	0.68
8/9/2003	21:15	30.2	290	0.1	7.2	2.8	37.6	0.67
8/9/2003	21:30	30.2	290	0.1	7.2	2.8	37.1	0.67
8/9/2003	21:45	30.1	291	0.1	7.2	2.7	35.1	0.67
8/9/2003	22:00	30.1	291	0.1	7.2	2.6	34.6	0.67
8/9/2003	22:15	30.1	291	0.1	7.2	2.8	36.5	0.67
8/9/2003	22:30	30.0	290	0.1	7.2	2.8	37.5	0.66
8/9/2003	22:45	30.0	292	0.1	7.2	2.3	29.8	0.66
8/9/2003	23:00	30.0	292	0.1	7.2	2.5	33.1	0.66
8/9/2003	23:15	29.9	292	0.1	7.2	2.5	32.9	0.65
8/9/2003	23:30	29.9	293	0.1	7.2	2.2	28.7	0.65
8/9/2003	23:45	29.9	294	0.1	7.2	2.0	26.6	0.65
8/10/2003	0:00	29.8	292	0.1	7.2	2.2	29.5	0.65
8/10/2003	0:15	29.8	291	0.1	7.2	1.8	23.8	0.65
8/10/2003	0:30	29.8	292	0.1	7.2	2.0	26.5	0.64
8/10/2003	0:45	29.7	293	0.1	7.2	2.0	26.0	0.64
8/10/2003	1:00	29.7	295	0.1	7.2	2.0	25.8	0.64
8/10/2003	1:15	29.7	294	0.1	7.2	1.8	24.3	0.64
8/10/2003	1:30	29.7	294	0.1	7.2	1.8	23.3	0.64
8/10/2003	1:45	29.7	293	0.1	7.2	1.8	24.0	0.64
8/10/2003	2:00	29.6	293	0.1	7.2	1.6	20.9	0.63
8/10/2003	2:15	29.6	294	0.1	7.2	1.7	22.8	0.63
8/10/2003	2:30	29.6	295	0.1	7.2	1.8	23.6	0.63
8/10/2003	2:45	29.6	295	0.1	7.2	1.5	19.9	0.63
8/10/2003	3:00	29.5	295	0.1	7.2	1.6	21.0	0.62
8/10/2003	3:15	29.5	296	0.1	7.2	1.5	19.7	0.62

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/10/2003	3:30	29.5	296	0.1	7.2	1.7	22.1	0.62
8/10/2003	3:45	29.4	296	0.1	7.2	1.4	17.9	0.62
8/10/2003	4:00	29.4	295	0.1	7.1	1.2	16.2	0.61
8/10/2003	4:15	29.4	296	0.1	7.2	1.3	16.9	0.62
8/10/2003	4:30	29.4	296	0.1	7.1	1.2	15.6	0.62
8/10/2003	4:45	29.3	296	0.1	7.1	1.4	17.8	0.63
8/10/2003	5:00	29.3	296	0.1	7.2	1.2	16.0	0.62
8/10/2003	5:15	29.3	296	0.1	7.2	1.1	14.3	0.62
8/10/2003	5:30	29.3	296	0.1	7.2	1.2	15.8	0.62
8/10/2003	5:45	29.2	296	0.1	7.1	1.2	15.4	0.62
8/10/2003	6:00	29.2	296	0.1	7.1	1.0	13.6	0.63
8/10/2003	6:15	29.2	296	0.1	7.1	1.2	15.0	0.63
8/10/2003	6:30	29.2	296	0.1	7.1	1.0	13.4	0.63
8/10/2003	6:45	29.1	296	0.1	7.1	1.1	14.1	0.63
8/10/2003	7:00	29.1	297	0.1	7.2	1.1	14.3	0.64
8/10/2003	7:15	29.1	297	0.1	7.1	1.0	12.6	0.63
8/10/2003	7:30	29.1	298	0.1	7.1	0.8	10.7	0.64
8/10/2003	7:45	29.1	298	0.1	7.1	1.0	13.0	0.64
8/10/2003	8:00	29.1	298	0.1	7.1	0.9	11.2	0.64
8/10/2003	8:15	29.0	298	0.1	7.1	1.0	12.9	0.65
8/10/2003	8:30	29.0	297	0.1	7.1	0.8	9.8	0.65
8/10/2003	8:45	29.0	297	0.1	7.1	0.6	8.1	0.66
8/10/2003	9:00	29.0	297	0.1	7.1	0.9	11.8	0.67
8/10/2003	9:15	29.0	297	0.1	7.1	0.6	7.8	0.66
8/10/2003	9:30	29.0	297	0.1	7.1	0.7	8.6	0.67
8/10/2003	9:45	29.0	297	0.1	7.1	0.6	7.6	0.68
8/10/2003	10:00	29.1	297	0.1	7.1	0.8	10.3	0.68
8/10/2003	10:15	29.1	297	0.1	7.1	0.7	8.7	0.68
8/10/2003	10:30	29.1	297	0.1	7.1	0.7	9.6	0.69
8/10/2003	10:45	29.1	297	0.1	7.1	0.8	10.1	0.69
8/10/2003	11:00	29.1	297	0.1	7.1	0.8	10.7	0.70

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/10/2003	11:15	29.2	297	0.1	7.1	0.8	11.0	0.69
8/10/2003	11:30	29.2	297	0.1	7.1	0.9	11.1	0.69
8/10/2003	11:45	29.3	297	0.1	7.1	0.8	10.1	0.70
8/10/2003	12:00	29.3	297	0.1	7.1	0.9	12.2	0.69
8/10/2003	12:15	29.4	297	0.1	7.1	0.9	11.9	0.70
8/10/2003	12:30	29.4	297	0.1	7.2	1.0	12.7	0.70
8/10/2003	12:45	29.5	298	0.1	7.1	0.8	10.2	0.71
8/10/2003	13:00	29.6	298	0.1	7.1	0.9	11.5	0.71
8/10/2003	13:15	29.6	298	0.1	7.1	1.0	12.5	0.71
8/10/2003	13:30	29.7	297	0.1	7.1	1.0	12.8	0.72
8/10/2003	13:45	29.7	298	0.1	7.2	1.2	15.2	0.72
8/10/2003	14:00	29.7	298	0.1	7.2	1.1	13.8	0.72
8/10/2003	14:15	29.9	298	0.1	7.2	1.1	14.5	0.72
8/10/2003	14:30	29.9	298	0.1	7.2	1.1	13.8	0.73
8/10/2003	14:45	29.8	306	0.2	7.2	1.0	13.5	0.73
8/10/2003	15:00	29.9	300	0.2	7.1	0.9	12.2	0.73
8/10/2003	15:15	29.9	299	0.1	7.2	0.9	11.6	0.73
8/10/2003	15:30	30.0	298	0.1	7.2	1.4	17.9	0.73
8/10/2003	15:45	29.9	299	0.1	7.2	0.9	12.3	0.73
8/10/2003	16:00	30.0	298	0.1	7.2	0.9	12.4	0.72
8/10/2003	16:15	30.1	299	0.1	7.2	1.2	16.4	0.73
8/10/2003	16:30	30.0	302	0.2	7.2	0.8	10.9	0.72
8/10/2003	16:45	30.1	299	0.1	7.1	0.9	11.7	0.73
8/10/2003	17:00	30.2	299	0.1	7.2	1.1	14.8	0.72
8/10/2003	17:15	30.2	300	0.2	7.2	1.2	15.7	0.73
8/10/2003	17:30	30.2	300	0.2	7.2	1.0	13.6	0.72
8/10/2003	17:45	30.2	299	0.1	7.2	0.9	11.9	0.72
8/10/2003	18:00	30.2	304	0.2	7.2	1.0	13.3	0.72
8/10/2003	18:15	30.2	300	0.2	7.2	1.0	12.9	0.72
8/10/2003	18:30	30.4	302	0.2	7.2	1.2	15.9	0.72
8/10/2003	18:45	30.4	302	0.2	7.2	1.7	22.2	0.71

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/10/2003	19:00	30.4	302	0.2	7.2	1.7	22.3	0.71
8/10/2003	19:15	30.5	304	0.2	7.2	1.4	19.3	0.70
8/10/2003	19:30	30.5	302	0.2	7.2	1.6	21.8	0.71
8/10/2003	19:45	30.5	302	0.2	7.2	2.0	26.2	0.70
8/10/2003	20:00	30.5	302	0.2	7.2	1.4	18.7	0.70
8/10/2003	20:15	30.6	303	0.2	7.3	2.3	30.7	0.70
8/10/2003	20:30	30.5	302	0.2	7.2	1.8	24.0	0.70
8/10/2003	20:45	30.5	304	0.2	7.2	1.7	22.9	0.69
8/10/2003	21:00	30.5	304	0.2	7.2	1.7	22.9	0.69
8/10/2003	21:15	30.5	305	0.2	7.2	1.9	25.3	0.69
8/10/2003	21:30	30.5	304	0.2	7.3	2.6	34.1	0.69
8/10/2003	21:45	30.5	305	0.2	7.3	2.8	37.0	0.68
8/10/2003	22:00	30.4	304	0.2	7.3	2.2	29.3	0.69
8/10/2003	22:15	30.4	304	0.2	7.3	2.9	39.0	0.68
8/10/2003	22:30	30.4	305	0.2	7.3	2.5	32.9	0.69
8/10/2003	22:45	30.3	305	0.2	7.3	2.8	37.3	0.67
8/10/2003	23:00	30.3	305	0.2	7.3	2.6	34.1	0.67
8/10/2003	23:15	30.3	305	0.2	7.3	2.4	31.9	0.68
8/10/2003	23:30	30.2	305	0.2	7.3	2.3	31.0	0.67
8/10/2003	23:45	30.2	305	0.2	7.3	2.2	28.9	0.66
8/11/2003	0:00	30.1	305	0.2	7.3	2.4	32.2	0.66
8/11/2003	0:15	30.1	306	0.2	7.3	2.3	30.5	0.66
8/11/2003	0:30	30.1	306	0.2	7.3	2.4	32.4	0.65
8/11/2003	0:45	30.0	306	0.2	7.3	2.3	30.8	0.66
8/11/2003	1:00	30.0	306	0.2	7.3	2.1	27.8	0.65
8/11/2003	1:15	30.0	307	0.2	7.3	2.0	26.0	0.65
8/11/2003	1:30	29.9	307	0.2	7.3	1.9	25.2	0.65
8/11/2003	1:45	29.9	307	0.2	7.3	2.1	27.9	0.64
8/11/2003	2:00	29.9	308	0.2	7.3	2.1	27.7	0.64
8/11/2003	2:15	29.8	308	0.2	7.3	1.9	25.5	0.64
8/11/2003	2:30	29.8	309	0.2	7.3	1.7	22.1	0.64

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

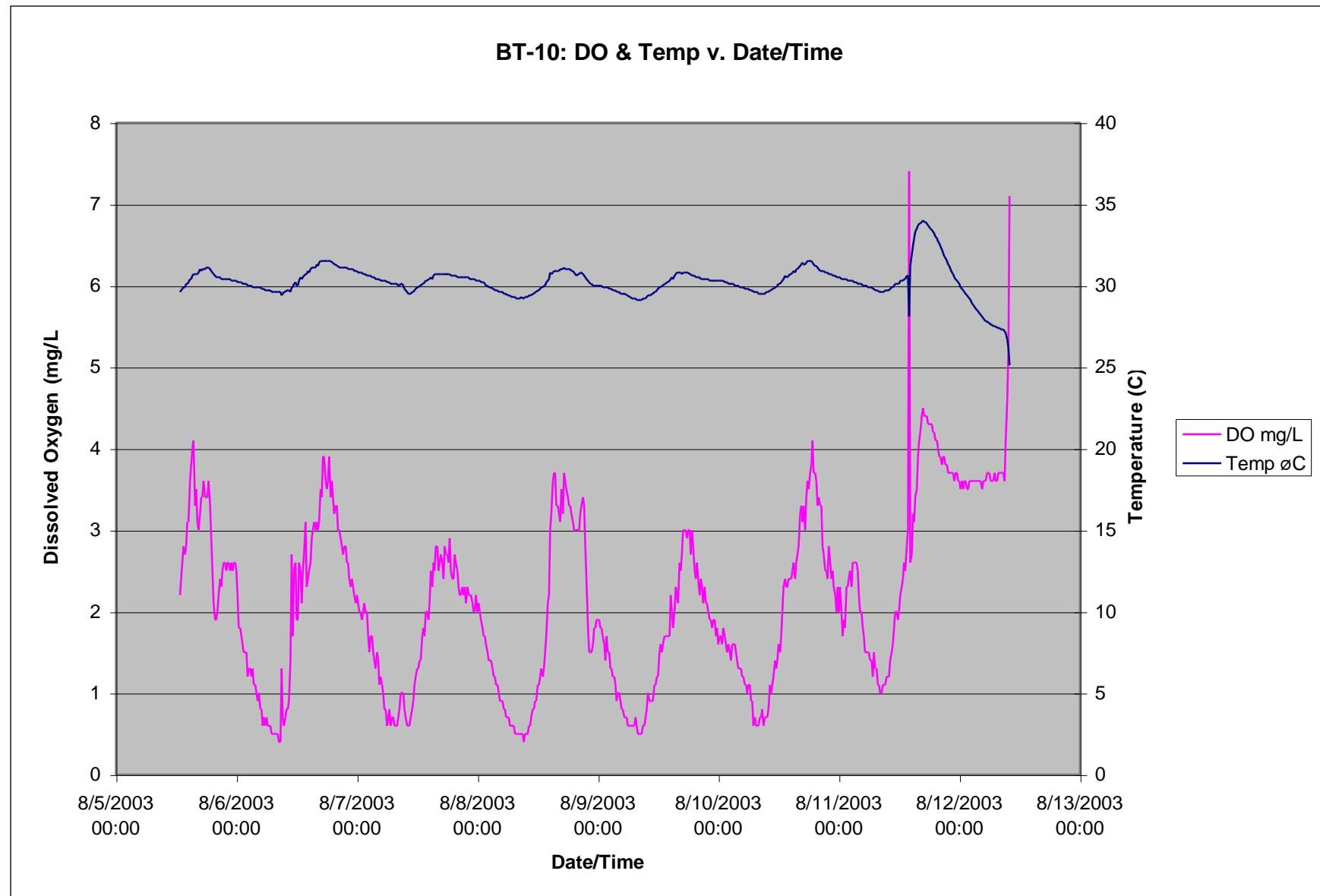
8/11/2003	2:45	29.8	310	0.2	7.3	1.7	22.5	0.64
8/11/2003	3:00	29.8	311	0.2	7.3	1.8	23.2	0.63
8/11/2003	3:15	29.8	311	0.2	7.3	1.6	21.1	0.63
8/11/2003	3:30	29.7	311	0.2	7.3	2.1	27.6	0.63
8/11/2003	3:45	29.7	313	0.2	7.3	2.0	26.1	0.64
8/11/2003	4:00	29.6	312	0.2	7.3	2.0	26.9	0.63
8/11/2003	4:15	29.6	313	0.2	7.3	1.7	22.2	0.63
8/11/2003	4:30	29.6	314	0.2	7.3	1.4	18.4	0.63
8/11/2003	4:45	29.5	315	0.2	7.3	1.6	20.8	0.63
8/11/2003	5:00	29.5	316	0.2	7.3	1.5	19.3	0.63
8/11/2003	5:15	29.5	315	0.2	7.3	1.4	18.5	0.63
8/11/2003	5:30	29.5	316	0.2	7.3	1.3	17.2	0.62
8/11/2003	5:45	29.4	317	0.2	7.3	1.2	15.3	0.63
8/11/2003	6:00	29.4	317	0.2	7.3	1.1	14.2	0.63
8/11/2003	6:15	29.4	315	0.2	7.2	1.5	19.9	0.63
8/11/2003	6:30	29.3	316	0.2	7.3	1.3	16.5	0.64
8/11/2003	6:45	29.3	314	0.2	7.3	1.2	15.7	0.63
8/11/2003	7:00	29.3	314	0.2	7.2	1.2	16.1	0.64
8/11/2003	7:15	29.2	315	0.2	7.2	1.1	14.6	0.64
8/11/2003	7:30	29.3	314	0.2	7.3	1.3	17.1	0.65
8/11/2003	7:45	29.2	314	0.2	7.2	1.2	15.8	0.65
8/11/2003	8:00	29.2	314	0.2	7.2	1.1	13.7	0.65
8/11/2003	8:15	29.2	314	0.2	7.2	0.9	11.1	0.65
8/11/2003	8:30	29.2	313	0.2	7.2	1.1	14.2	0.65
8/11/2003	8:45	29.1	312	0.2	7.2	1.0	13.6	0.67
8/11/2003	9:00	29.1	311	0.2	7.2	1.0	12.4	0.67
8/11/2003	9:15	29.1	311	0.2	7.2	0.8	10.2	0.67
8/11/2003	9:30	29.1	310	0.2	7.2	1.0	12.6	0.67
8/11/2003	9:45	29.1	310	0.2	7.2	1.0	13.5	0.68
8/11/2003	10:00	29.1	310	0.2	7.2	0.8	10.9	0.68
8/11/2003	10:15	29.2	309	0.2	7.2	0.9	11.7	0.69

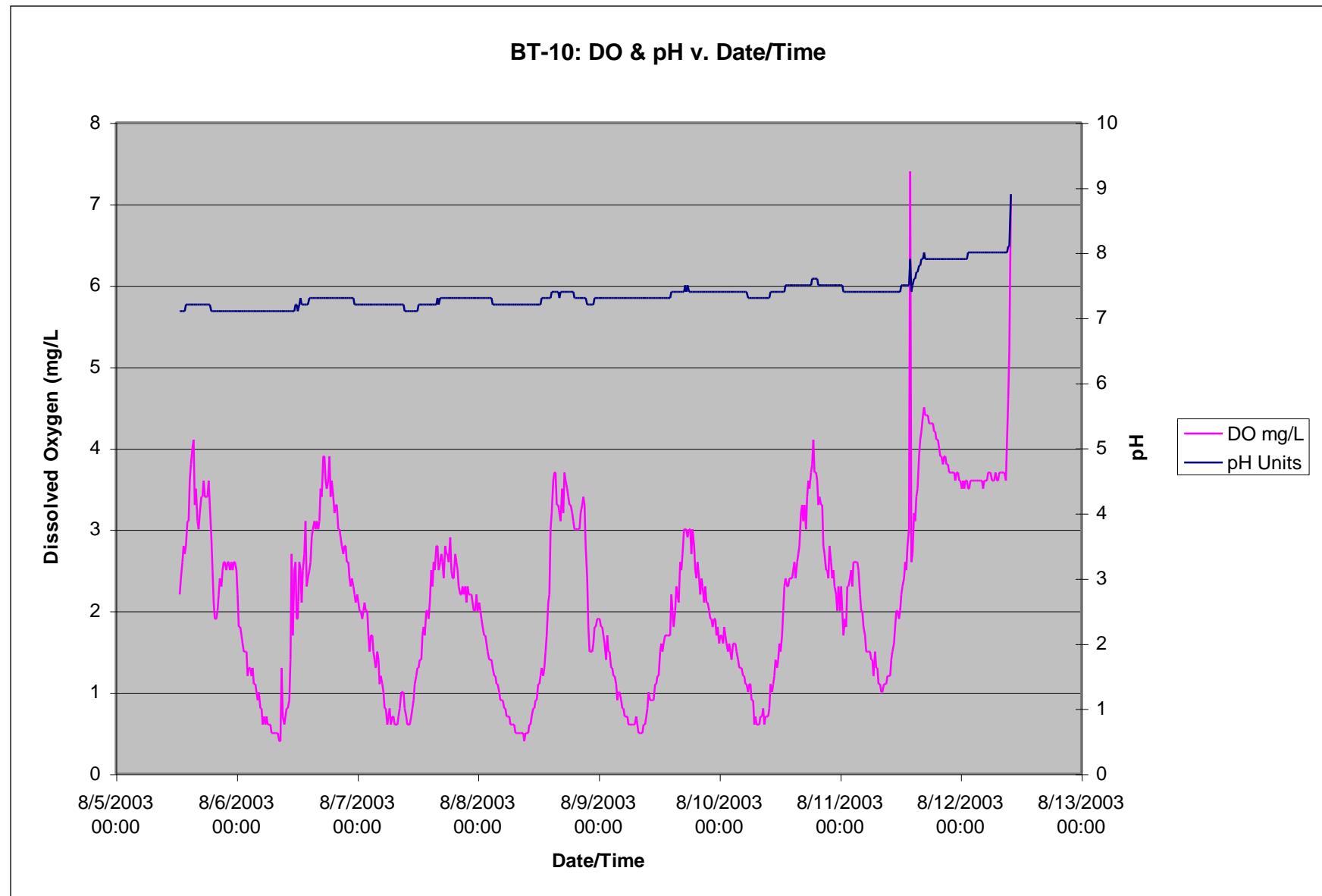
Bayou Terrebonne Watershed TMDL

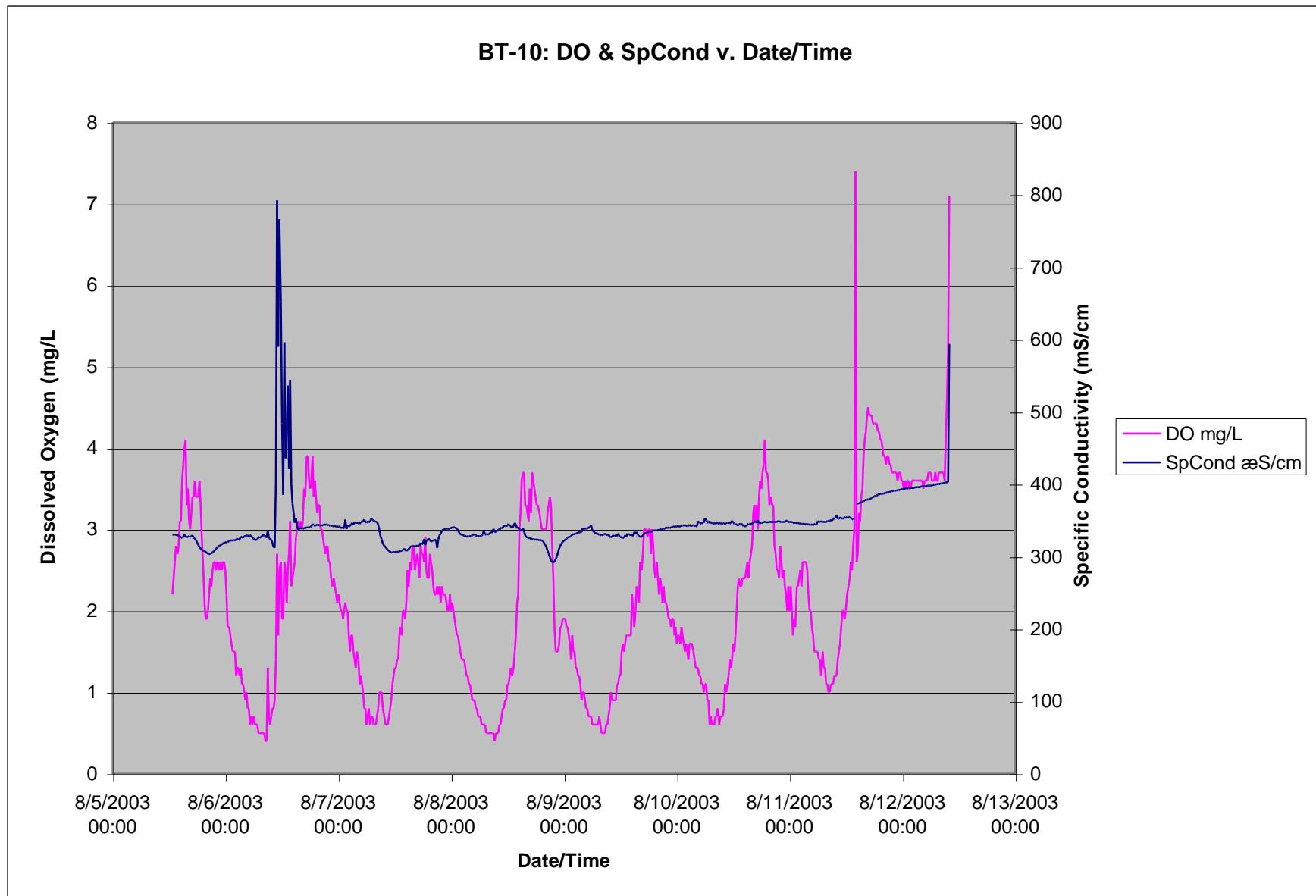
Subsegment 120301

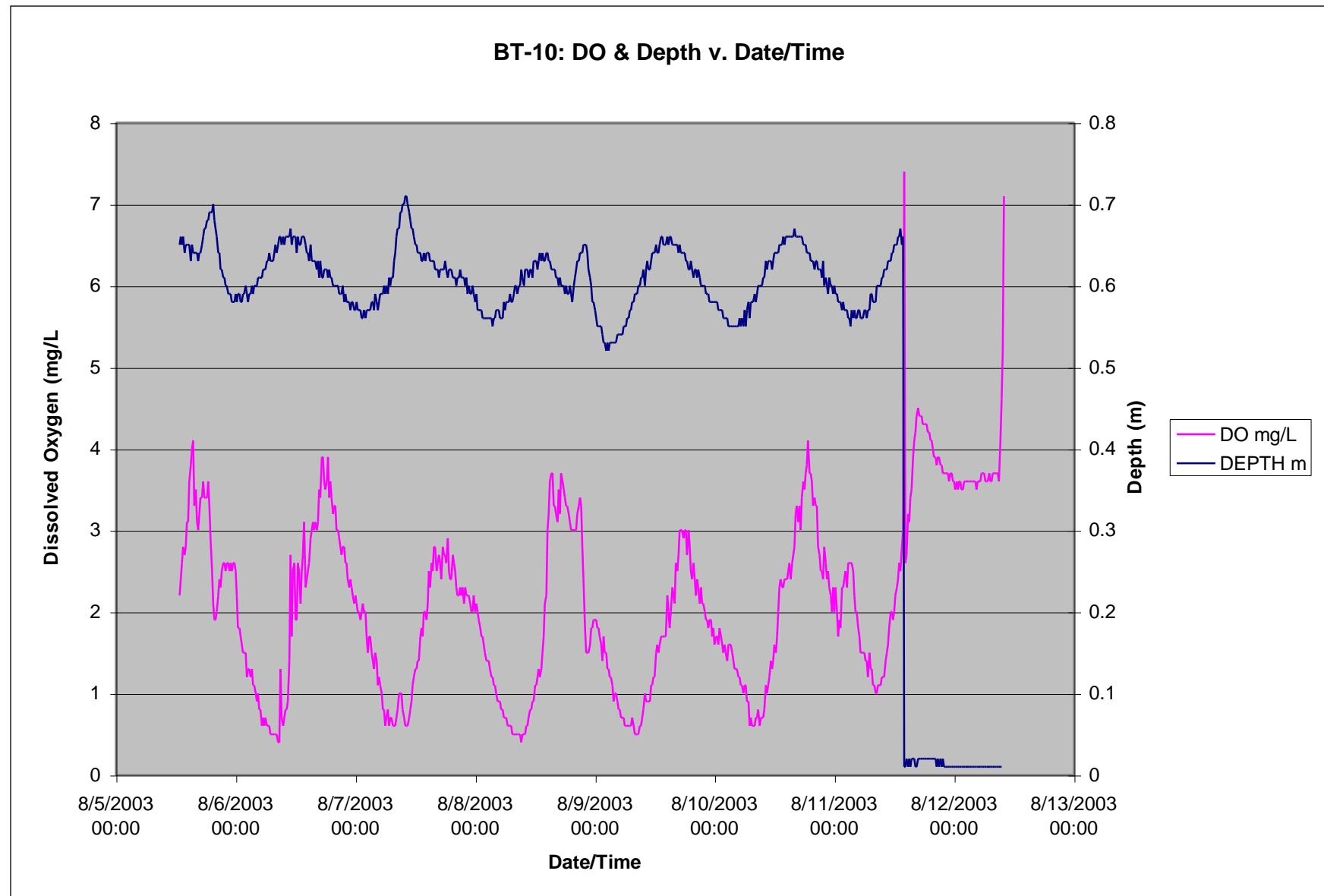
Originated: March 19, 2008

8/11/2003	10:30	29.2	309	0.2	7.2	1.0	12.9	0.69
8/11/2003	10:45	29.2	309	0.2	7.2	0.9	11.3	0.69
8/11/2003	11:00	29.2	309	0.2	7.2	0.9	12.2	0.70
8/11/2003	11:15	29.3	309	0.2	7.2	0.7	8.8	0.70
8/11/2003	11:30	29.3	309	0.2	7.2	0.7	9.2	0.70
8/11/2003	11:45	29.4	309	0.2	7.2	0.9	11.4	0.71
8/11/2003	12:00	29.4	309	0.2	7.2	0.8	10.4	0.71









MiniSonde 4a 40010
Log File Name : BT-10
Setup Date (MMDDYY) : 080403
Setup Time (HHMMSS) : 130352
Starting Date (MMDDYY) : 080403
Starting Time (HHMMSS) : 131500
Stopping Date (MMDDYY) : 081203
Stopping Time (HHMMSS) : 235959
Interval (HHMMSS) : 001500
Sensor warmup (HHMMSS) : 000200
Circltr warmup (HHMMSS) : 000200

Date MMDDYY	Time HHMMSS	Temp °C	SpCond µS/cm	Sal ppt	pH Units	DO mg/l	DO% Sat	Depth meters
8/5/2003	12:45	29.6	330	0.2	7.1	2.2	28.8	0.65
8/5/2003	13:00	29.7	330	0.2	7.1	2.4	31.6	0.66
8/5/2003	13:15	29.8	330	0.2	7.1	2.6	34.3	0.65
8/5/2003	13:30	29.9	330	0.2	7.1	2.8	36.5	0.66
8/5/2003	13:45	29.9	329	0.2	7.1	2.7	36.0	0.64
8/5/2003	14:00	30.1	329	0.2	7.2	2.8	37.5	0.65
8/5/2003	14:15	30.1	328	0.2	7.2	3.1	41.1	0.65
8/5/2003	14:30	30.2	326	0.2	7.2	3.1	41.6	0.65
8/5/2003	14:45	30.4	326	0.2	7.2	3.6	47.4	0.65
8/5/2003	15:00	30.4	327	0.2	7.2	3.8	50.3	0.63
8/5/2003	15:15	30.6	330	0.2	7.2	4.0	54.0	0.65
8/5/2003	15:30	30.7	327	0.2	7.2	4.1	55.1	0.64
8/5/2003	15:45	30.7	327	0.2	7.2	3.3	43.8	0.64
8/5/2003	16:00	30.7	327	0.2	7.2	3.5	47.0	0.64

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	16:15	30.7	328	0.2	7.2	3.1	41.2	0.64
8/5/2003	16:30	30.8	327	0.2	7.2	3.0	39.7	0.63
8/5/2003	16:45	31.0	328	0.2	7.2	3.2	42.9	0.64
8/5/2003	17:00	30.9	329	0.2	7.2	3.4	45.8	0.64
8/5/2003	17:15	31.0	326	0.2	7.2	3.4	45.3	0.65
8/5/2003	17:30	31.0	325	0.2	7.2	3.6	48.9	0.66
8/5/2003	17:45	31.0	323	0.2	7.2	3.4	45.3	0.67
8/5/2003	18:00	31.1	319	0.2	7.2	3.4	46.3	0.67
8/5/2003	18:15	31.1	316	0.2	7.2	3.4	45.6	0.68
8/5/2003	18:30	31.1	313	0.2	7.2	3.6	48.5	0.68
8/5/2003	18:45	31.0	311	0.2	7.2	3.3	44.5	0.69
8/5/2003	19:00	30.9	309	0.2	7.1	2.9	38.7	0.69
8/5/2003	19:15	30.8	308	0.2	7.1	2.5	33.5	0.69
8/5/2003	19:30	30.7	308	0.2	7.1	2.1	28.5	0.70
8/5/2003	19:45	30.6	306	0.2	7.1	1.9	25.9	0.68
8/5/2003	20:00	30.5	305	0.2	7.1	1.9	25.8	0.67
8/5/2003	20:15	30.5	304	0.2	7.1	2.0	27.1	0.66
8/5/2003	20:30	30.5	303	0.2	7.1	2.2	29.3	0.64
8/5/2003	20:45	30.5	304	0.2	7.1	2.4	31.7	0.64
8/5/2003	21:00	30.4	304	0.2	7.1	2.3	31.1	0.62
8/5/2003	21:15	30.4	306	0.2	7.1	2.5	33.3	0.62
8/5/2003	21:30	30.4	307	0.2	7.1	2.6	34.4	0.61
8/5/2003	21:45	30.4	309	0.2	7.1	2.6	34.4	0.61
8/5/2003	22:00	30.4	311	0.2	7.1	2.5	33.5	0.60
8/5/2003	22:15	30.4	312	0.2	7.1	2.6	35.2	0.60
8/5/2003	22:30	30.4	314	0.2	7.1	2.6	34.6	0.59
8/5/2003	22:45	30.4	315	0.2	7.1	2.5	33.9	0.59
8/5/2003	23:00	30.3	316	0.2	7.1	2.6	34.4	0.59
8/5/2003	23:15	30.3	317	0.2	7.1	2.5	33.9	0.58
8/5/2003	23:30	30.3	318	0.2	7.1	2.6	34.2	0.58
8/5/2003	23:45	30.3	319	0.2	7.1	2.6	33.9	0.58

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	0:00	30.3	319	0.2	7.1	2.5	32.9	0.59
8/6/2003	0:15	30.2	320	0.2	7.1	2.2	29.4	0.58
8/6/2003	0:30	30.2	320	0.2	7.1	1.8	23.5	0.59
8/6/2003	0:45	30.2	321	0.2	7.1	1.8	24.3	0.59
8/6/2003	1:00	30.2	322	0.2	7.1	1.7	22.4	0.58
8/6/2003	1:15	30.1	322	0.2	7.1	1.6	20.8	0.58
8/6/2003	1:30	30.1	322	0.2	7.1	1.5	19.5	0.59
8/6/2003	1:45	30.1	322	0.2	7.1	1.5	20.4	0.59
8/6/2003	2:00	30.1	323	0.2	7.1	1.5	20.2	0.60
8/6/2003	2:15	30.0	323	0.2	7.1	1.2	16.5	0.59
8/6/2003	2:30	30.0	325	0.2	7.1	1.3	17.6	0.58
8/6/2003	2:45	30.0	323	0.2	7.1	1.3	17.0	0.59
8/6/2003	3:00	30.0	324	0.2	7.1	1.2	16.5	0.59
8/6/2003	3:15	29.9	327	0.2	7.1	1.3	17.0	0.60
8/6/2003	3:30	29.9	327	0.2	7.1	1.1	14.5	0.59
8/6/2003	3:45	29.9	326	0.2	7.1	1.1	14.0	0.60
8/6/2003	4:00	29.9	328	0.2	7.1	1.0	12.8	0.60
8/6/2003	4:15	29.9	328	0.2	7.1	0.9	11.9	0.60
8/6/2003	4:30	29.9	329	0.2	7.1	1.0	13.4	0.61
8/6/2003	4:45	29.9	329	0.2	7.1	0.8	11.1	0.61
8/6/2003	5:00	29.8	328	0.2	7.1	0.8	10.9	0.61
8/6/2003	5:15	29.8	329	0.2	7.1	0.6	8.2	0.61
8/6/2003	5:30	29.8	329	0.2	7.1	0.7	9.3	0.62
8/6/2003	5:45	29.7	326	0.2	7.1	0.6	8.2	0.62
8/6/2003	6:00	29.7	325	0.2	7.1	0.7	8.7	0.62
8/6/2003	6:15	29.7	323	0.2	7.1	0.6	8.1	0.63
8/6/2003	6:30	29.7	323	0.2	7.1	0.6	7.5	0.63
8/6/2003	6:45	29.7	324	0.2	7.1	0.6	8.0	0.64
8/6/2003	7:00	29.6	326	0.2	7.1	0.5	6.7	0.63
8/6/2003	7:15	29.6	327	0.2	7.1	0.5	6.7	0.63
8/6/2003	7:30	29.6	326	0.2	7.1	0.5	6.4	0.63

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	7:45	29.6	328	0.2	7.1	0.5	6.7	0.64
8/6/2003	8:00	29.6	331	0.2	7.1	0.5	6.8	0.65
8/6/2003	8:15	29.6	328	0.2	7.1	0.5	6.6	0.64
8/6/2003	8:30	29.6	329	0.2	7.1	0.4	5.7	0.65
8/6/2003	8:45	29.6	326	0.2	7.1	0.4	5.7	0.66
8/6/2003	9:00	29.4	336	0.2	7.1	1.3	17.1	0.66
8/6/2003	9:15	29.5	325	0.2	7.1	0.7	8.8	0.65
8/6/2003	9:30	29.6	325	0.2	7.1	0.6	8.2	0.66
8/6/2003	9:45	29.6	323	0.2	7.1	0.7	8.9	0.65
8/6/2003	10:00	29.7	319	0.2	7.1	0.8	10.0	0.66
8/6/2003	10:15	29.7	313	0.2	7.1	0.8	10.8	0.66
8/6/2003	10:30	29.7	312	0.2	7.1	0.9	11.5	0.66
8/6/2003	10:45	29.6	404	0.2	7.1	1.4	18.5	0.66
8/6/2003	11:00	29.9	792	0.4	7.1	2.7	35.5	0.67
8/6/2003	11:15	29.9	590	0.3	7.1	1.7	22.8	0.65
8/6/2003	11:30	30.1	766	0.4	7.1	2.5	32.9	0.66
8/6/2003	11:45	30.2	652	0.3	7.2	2.6	34.4	0.66
8/6/2003	12:00	30.0	484	0.2	7.2	1.9	25.2	0.66
8/6/2003	12:15	30.0	385	0.2	7.1	1.9	25.5	0.64
8/6/2003	12:30	30.3	596	0.3	7.2	2.6	34.2	0.66
8/6/2003	12:45	30.5	436	0.2	7.3	2.5	33.8	0.65
8/6/2003	13:00	30.4	474	0.2	7.2	2.1	28.2	0.65
8/6/2003	13:15	30.5	536	0.3	7.2	2.5	34.3	0.66
8/6/2003	13:30	30.6	421	0.2	7.2	2.7	35.9	0.66
8/6/2003	13:45	30.7	544	0.3	7.2	3.1	41.6	0.66
8/6/2003	14:00	30.7	400	0.2	7.2	2.3	30.4	0.65
8/6/2003	14:15	30.9	373	0.2	7.2	2.4	31.9	0.64
8/6/2003	14:30	30.8	360	0.2	7.3	2.5	33.4	0.64
8/6/2003	14:45	31.0	347	0.2	7.3	2.6	35.5	0.63
8/6/2003	15:00	31.1	353	0.2	7.3	2.9	39.1	0.65
8/6/2003	15:15	31.1	342	0.2	7.3	3.0	40.4	0.63

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	15:30	31.1	337	0.2	7.3	3.1	42.3	0.63
8/6/2003	15:45	31.1	339	0.2	7.3	3.0	39.8	0.63
8/6/2003	16:00	31.3	339	0.2	7.3	3.1	42.4	0.63
8/6/2003	16:15	31.2	340	0.2	7.3	3.0	39.9	0.62
8/6/2003	16:30	31.4	339	0.2	7.3	3.1	42.7	0.63
8/6/2003	16:45	31.5	339	0.2	7.3	3.5	46.9	0.61
8/6/2003	17:00	31.5	340	0.2	7.3	3.4	46.7	0.63
8/6/2003	17:15	31.5	340	0.2	7.3	3.9	53.5	0.61
8/6/2003	17:30	31.5	341	0.2	7.3	3.9	53.1	0.61
8/6/2003	17:45	31.5	340	0.2	7.3	3.6	49.5	0.62
8/6/2003	18:00	31.5	341	0.2	7.3	3.5	47.5	0.62
8/6/2003	18:15	31.5	342	0.2	7.3	3.6	49.5	0.62
8/6/2003	18:30	31.5	345	0.2	7.3	3.9	53.0	0.61
8/6/2003	18:45	31.5	343	0.2	7.3	3.4	46.4	0.62
8/6/2003	19:00	31.4	343	0.2	7.3	3.6	48.9	0.61
8/6/2003	19:15	31.4	343	0.2	7.3	3.4	46.3	0.61
8/6/2003	19:30	31.3	344	0.2	7.3	3.2	43.6	0.60
8/6/2003	19:45	31.3	344	0.2	7.3	3.3	44.3	0.60
8/6/2003	20:00	31.2	343	0.2	7.3	3.3	43.9	0.60
8/6/2003	20:15	31.2	343	0.2	7.3	3.0	40.5	0.60
8/6/2003	20:30	31.1	343	0.2	7.3	3.0	40.1	0.60
8/6/2003	20:45	31.1	343	0.2	7.3	2.9	39.6	0.59
8/6/2003	21:00	31.1	344	0.2	7.3	2.8	37.2	0.59
8/6/2003	21:15	31.1	344	0.2	7.3	2.7	36.8	0.59
8/6/2003	21:30	31.1	344	0.2	7.3	2.8	37.1	0.60
8/6/2003	21:45	31.1	344	0.2	7.3	2.8	37.3	0.58
8/6/2003	22:00	31.1	343	0.2	7.3	2.6	34.9	0.59
8/6/2003	22:15	31.0	343	0.2	7.3	2.6	35.0	0.58
8/6/2003	22:30	31.0	343	0.2	7.3	2.4	31.6	0.58
8/6/2003	22:45	31.0	342	0.2	7.3	2.3	30.8	0.58
8/6/2003	23:00	31.0	342	0.2	7.3	2.4	32.3	0.57

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	23:15	31.0	342	0.2	7.3	2.3	30.8	0.58
8/6/2003	23:30	30.9	342	0.2	7.2	2.2	29.7	0.58
8/6/2003	23:45	30.9	341	0.2	7.2	2.1	28.2	0.57
8/7/2003	0:00	30.9	342	0.2	7.2	2.2	29.7	0.57
8/7/2003	0:15	30.8	341	0.2	7.2	2.1	27.9	0.58
8/7/2003	0:30	30.8	340	0.2	7.2	2.0	27.3	0.57
8/7/2003	0:45	30.8	340	0.2	7.2	2.0	27.1	0.57
8/7/2003	1:00	30.8	340	0.2	7.2	1.9	25.7	0.57
8/7/2003	1:15	30.7	339	0.2	7.2	2.0	26.5	0.56
8/7/2003	1:30	30.7	351	0.2	7.2	2.1	27.4	0.56
8/7/2003	1:45	30.7	338	0.2	7.2	2.0	26.2	0.57
8/7/2003	2:00	30.6	343	0.2	7.2	2.0	26.2	0.56
8/7/2003	2:15	30.6	342	0.2	7.2	1.7	23.3	0.57
8/7/2003	2:30	30.6	342	0.2	7.2	1.5	20.3	0.57
8/7/2003	2:45	30.6	345	0.2	7.2	1.7	22.8	0.57
8/7/2003	3:00	30.5	346	0.2	7.2	1.7	23.1	0.57
8/7/2003	3:15	30.5	344	0.2	7.2	1.5	19.8	0.58
8/7/2003	3:30	30.5	348	0.2	7.2	1.4	18.6	0.58
8/7/2003	3:45	30.4	346	0.2	7.2	1.3	17.8	0.57
8/7/2003	4:00	30.4	347	0.2	7.2	1.5	19.6	0.59
8/7/2003	4:15	30.4	346	0.2	7.2	1.4	18.7	0.58
8/7/2003	4:30	30.4	345	0.2	7.2	1.1	15.0	0.57
8/7/2003	4:45	30.3	348	0.2	7.2	1.2	16.2	0.58
8/7/2003	5:00	30.3	348	0.2	7.2	1.1	15.0	0.59
8/7/2003	5:15	30.3	349	0.2	7.2	1.0	13.6	0.59
8/7/2003	5:30	30.3	351	0.2	7.2	0.8	11.1	0.59
8/7/2003	5:45	30.3	348	0.2	7.2	0.8	9.9	0.60
8/7/2003	6:00	30.2	347	0.2	7.2	0.6	8.2	0.59
8/7/2003	6:15	30.2	349	0.2	7.2	0.7	9.3	0.60
8/7/2003	6:30	30.2	348	0.2	7.2	0.8	10.0	0.59
8/7/2003	6:45	30.1	348	0.2	7.2	0.6	8.3	0.61

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/7/2003	7:00	30.1	352	0.2	7.2	0.7	9.1	0.60
8/7/2003	7:15	30.1	351	0.2	7.2	0.7	8.6	0.61
8/7/2003	7:30	30.1	350	0.2	7.2	0.6	8.1	0.61
8/7/2003	7:45	30.1	349	0.2	7.2	0.6	7.9	0.63
8/7/2003	8:00	30.1	348	0.2	7.2	0.6	7.8	0.64
8/7/2003	8:15	30.0	348	0.2	7.2	0.7	9.5	0.66
8/7/2003	8:30	30.0	344	0.2	7.2	0.8	11.1	0.67
8/7/2003	8:45	30.1	337	0.2	7.2	1.0	13.0	0.67
8/7/2003	9:00	30.1	328	0.2	7.2	1.0	13.5	0.69
8/7/2003	9:15	30.0	324	0.2	7.2	1.0	13.7	0.69
8/7/2003	9:30	29.8	318	0.2	7.1	0.8	10.9	0.70
8/7/2003	9:45	29.7	315	0.2	7.1	0.7	8.6	0.70
8/7/2003	10:00	29.6	313	0.2	7.1	0.6	7.2	0.71
8/7/2003	10:15	29.5	311	0.2	7.1	0.6	7.7	0.71
8/7/2003	10:30	29.5	309	0.2	7.1	0.6	7.7	0.70
8/7/2003	10:45	29.5	308	0.2	7.1	0.7	9.4	0.69
8/7/2003	11:00	29.6	306	0.2	7.1	0.8	10.6	0.68
8/7/2003	11:15	29.6	306	0.2	7.1	0.9	12.3	0.67
8/7/2003	11:30	29.7	305	0.2	7.1	1.1	14.3	0.67
8/7/2003	11:45	29.8	306	0.2	7.1	1.2	15.5	0.66
8/7/2003	12:00	29.9	306	0.2	7.1	1.3	17.1	0.65
8/7/2003	12:15	29.9	306	0.2	7.2	1.3	17.6	0.65
8/7/2003	12:30	30.0	306	0.2	7.2	1.4	18.8	0.64
8/7/2003	12:45	30.0	307	0.2	7.2	1.4	18.8	0.64
8/7/2003	13:00	30.1	307	0.2	7.2	1.7	22.3	0.64
8/7/2003	13:15	30.1	308	0.2	7.2	1.8	23.7	0.63
8/7/2003	13:30	30.2	308	0.2	7.2	1.7	22.2	0.63
8/7/2003	13:45	30.3	309	0.2	7.2	2.0	26.9	0.64
8/7/2003	14:00	30.3	311	0.2	7.2	2.0	27.1	0.63
8/7/2003	14:15	30.4	309	0.2	7.2	1.9	25.1	0.64
8/7/2003	14:30	30.4	308	0.2	7.2	2.1	28.0	0.64

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/7/2003	14:45	30.5	309	0.2	7.2	2.5	32.8	0.64
8/7/2003	15:00	30.4	310	0.2	7.2	2.3	30.4	0.63
8/7/2003	15:15	30.6	313	0.2	7.2	2.6	34.4	0.63
8/7/2003	15:30	30.7	314	0.2	7.2	2.5	33.9	0.63
8/7/2003	15:45	30.7	314	0.2	7.2	2.8	37.6	0.63
8/7/2003	16:00	30.7	314	0.2	7.3	2.8	37.1	0.62
8/7/2003	16:15	30.7	314	0.2	7.2	2.5	34.0	0.62
8/7/2003	16:30	30.7	315	0.2	7.3	2.6	34.9	0.62
8/7/2003	16:45	30.7	315	0.2	7.3	2.7	35.5	0.61
8/7/2003	17:00	30.7	315	0.2	7.3	2.6	34.5	0.62
8/7/2003	17:15	30.7	315	0.2	7.3	2.4	32.0	0.62
8/7/2003	17:30	30.7	319	0.2	7.3	2.8	37.1	0.62
8/7/2003	17:45	30.7	317	0.2	7.3	2.7	36.2	0.62
8/7/2003	18:00	30.7	318	0.2	7.3	2.7	36.0	0.63
8/7/2003	18:15	30.7	324	0.2	7.3	2.6	34.8	0.62
8/7/2003	18:30	30.7	316	0.2	7.3	2.9	38.9	0.61
8/7/2003	18:45	30.6	322	0.2	7.3	2.5	33.3	0.62
8/7/2003	19:00	30.6	323	0.2	7.3	2.4	31.7	0.62
8/7/2003	19:15	30.6	325	0.2	7.3	2.4	32.0	0.62
8/7/2003	19:30	30.6	322	0.2	7.3	2.7	36.3	0.61
8/7/2003	19:45	30.6	321	0.2	7.3	2.6	34.1	0.61
8/7/2003	20:00	30.5	321	0.2	7.3	2.5	32.9	0.61
8/7/2003	20:15	30.5	322	0.2	7.3	2.3	30.6	0.60
8/7/2003	20:30	30.5	323	0.2	7.3	2.2	28.9	0.61
8/7/2003	20:45	30.5	323	0.2	7.3	2.2	29.4	0.61
8/7/2003	21:00	30.5	312	0.2	7.3	2.3	30.4	0.62
8/7/2003	21:15	30.5	324	0.2	7.3	2.2	29.8	0.61
8/7/2003	21:30	30.5	329	0.2	7.3	2.3	31.2	0.61
8/7/2003	21:45	30.5	332	0.2	7.3	2.1	28.6	0.61
8/7/2003	22:00	30.5	335	0.2	7.3	2.3	30.7	0.60
8/7/2003	22:15	30.5	337	0.2	7.3	2.2	28.8	0.61

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/7/2003	22:30	30.4	337	0.2	7.3	2.2	28.7	0.59
8/7/2003	22:45	30.4	338	0.2	7.3	2.2	29.3	0.60
8/7/2003	23:00	30.4	338	0.2	7.3	2.1	28.4	0.59
8/7/2003	23:15	30.4	339	0.2	7.3	2.0	26.7	0.59
8/7/2003	23:30	30.4	338	0.2	7.3	2.0	26.9	0.60
8/7/2003	23:45	30.3	339	0.2	7.3	2.2	28.7	0.59
8/8/2003	0:00	30.3	340	0.2	7.3	2.0	26.4	0.58
8/8/2003	0:15	30.3	340	0.2	7.3	2.1	28.0	0.59
8/8/2003	0:30	30.3	341	0.2	7.3	2.0	27.0	0.57
8/8/2003	0:45	30.2	340	0.2	7.3	1.9	25.1	0.57
8/8/2003	1:00	30.2	340	0.2	7.3	1.8	23.5	0.57
8/8/2003	1:15	30.2	338	0.2	7.3	1.7	22.8	0.57
8/8/2003	1:30	30.1	336	0.2	7.3	1.7	22.5	0.56
8/8/2003	1:45	30.0	333	0.2	7.3	1.6	21.0	0.56
8/8/2003	2:00	30.0	331	0.2	7.3	1.5	20.3	0.56
8/8/2003	2:15	29.9	330	0.2	7.3	1.4	18.3	0.56
8/8/2003	2:30	29.9	329	0.2	7.3	1.4	18.4	0.56
8/8/2003	2:45	29.9	329	0.2	7.3	1.4	18.2	0.56
8/8/2003	3:00	29.8	328	0.2	7.2	1.3	16.7	0.56
8/8/2003	3:15	29.8	328	0.2	7.2	1.2	15.2	0.56
8/8/2003	3:30	29.7	327	0.2	7.2	1.2	15.9	0.55
8/8/2003	3:45	29.7	328	0.2	7.2	1.1	14.9	0.56
8/8/2003	4:00	29.7	328	0.2	7.2	1.1	14.9	0.56
8/8/2003	4:15	29.6	328	0.2	7.2	1.0	13.7	0.57
8/8/2003	4:30	29.6	329	0.2	7.2	0.9	12.2	0.57
8/8/2003	4:45	29.6	331	0.2	7.2	0.9	12.2	0.57
8/8/2003	5:00	29.6	330	0.2	7.2	0.9	12.0	0.56
8/8/2003	5:15	29.5	329	0.2	7.2	0.8	10.7	0.56
8/8/2003	5:30	29.5	328	0.2	7.2	0.8	10.4	0.56
8/8/2003	5:45	29.5	328	0.2	7.2	0.7	8.9	0.58
8/8/2003	6:00	29.4	328	0.2	7.2	0.7	8.9	0.57

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/8/2003	6:15	29.4	328	0.2	7.2	0.7	8.7	0.58
8/8/2003	6:30	29.4	329	0.2	7.2	0.6	7.7	0.58
8/8/2003	6:45	29.3	330	0.2	7.2	0.6	7.8	0.58
8/8/2003	7:00	29.3	336	0.2	7.2	0.6	7.8	0.59
8/8/2003	7:15	29.3	330	0.2	7.2	0.6	7.5	0.58
8/8/2003	7:30	29.3	331	0.2	7.2	0.5	6.7	0.58
8/8/2003	7:45	29.2	331	0.2	7.2	0.5	6.8	0.59
8/8/2003	8:00	29.2	330	0.2	7.2	0.5	6.7	0.60
8/8/2003	8:15	29.2	333	0.2	7.2	0.5	6.7	0.60
8/8/2003	8:30	29.2	333	0.2	7.2	0.5	6.4	0.59
8/8/2003	8:45	29.3	334	0.2	7.2	0.5	6.3	0.60
8/8/2003	9:00	29.2	338	0.2	7.2	0.5	6.7	0.60
8/8/2003	9:15	29.2	334	0.2	7.2	0.4	5.2	0.62
8/8/2003	9:30	29.3	334	0.2	7.2	0.5	6.1	0.61
8/8/2003	9:45	29.3	335	0.2	7.2	0.5	6.1	0.60
8/8/2003	10:00	29.3	337	0.2	7.2	0.5	7.0	0.62
8/8/2003	10:15	29.4	337	0.2	7.2	0.6	7.4	0.62
8/8/2003	10:30	29.4	339	0.2	7.2	0.6	8.1	0.62
8/8/2003	10:45	29.4	340	0.2	7.2	0.7	9.7	0.61
8/8/2003	11:00	29.5	340	0.2	7.2	0.8	10.3	0.62
8/8/2003	11:15	29.5	343	0.2	7.2	0.8	10.9	0.62
8/8/2003	11:30	29.6	342	0.2	7.2	0.9	11.6	0.61
8/8/2003	11:45	29.6	342	0.2	7.2	0.9	11.6	0.63
8/8/2003	12:00	29.7	343	0.2	7.2	1.1	14.1	0.63
8/8/2003	12:15	29.7	345	0.2	7.2	1.1	14.6	0.63
8/8/2003	12:30	29.8	342	0.2	7.2	1.2	15.4	0.62
8/8/2003	12:45	29.9	342	0.2	7.3	1.3	17.0	0.63
8/8/2003	13:00	29.9	340	0.2	7.3	1.2	16.4	0.64
8/8/2003	13:15	30.0	342	0.2	7.3	1.3	17.3	0.63
8/8/2003	13:30	30.0	346	0.2	7.3	1.5	19.9	0.64
8/8/2003	13:45	30.2	344	0.2	7.3	1.7	22.9	0.63

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/8/2003	14:00	30.3	339	0.2	7.3	2.1	28.4	0.63
8/8/2003	14:15	30.4	341	0.2	7.3	2.2	29.3	0.64
8/8/2003	14:30	30.8	337	0.2	7.3	3.0	40.6	0.64
8/8/2003	14:45	30.7	337	0.2	7.4	3.2	42.3	0.63
8/8/2003	15:00	30.8	335	0.2	7.4	3.6	47.9	0.63
8/8/2003	15:15	30.9	339	0.2	7.4	3.7	49.8	0.62
8/8/2003	15:30	30.9	335	0.2	7.4	3.7	49.4	0.62
8/8/2003	15:45	30.9	329	0.2	7.4	3.3	44.2	0.62
8/8/2003	16:00	30.9	327	0.2	7.4	3.3	44.0	0.62
8/8/2003	16:15	30.9	326	0.2	7.3	3.2	43.5	0.61
8/8/2003	16:30	31.0	326	0.2	7.4	3.1	41.7	0.61
8/8/2003	16:45	31.0	325	0.2	7.4	3.5	47.4	0.60
8/8/2003	17:00	31.0	325	0.2	7.4	3.2	43.1	0.61
8/8/2003	17:15	31.1	324	0.2	7.4	3.7	50.1	0.60
8/8/2003	17:30	31.0	324	0.2	7.4	3.6	48.3	0.60
8/8/2003	17:45	31.0	324	0.2	7.4	3.5	46.8	0.60
8/8/2003	18:00	31.0	323	0.2	7.4	3.4	46.2	0.59
8/8/2003	18:15	31.0	324	0.2	7.4	3.3	43.8	0.60
8/8/2003	18:30	31.0	323	0.2	7.4	3.3	44.4	0.59
8/8/2003	18:45	30.9	323	0.2	7.4	3.2	43.1	0.59
8/8/2003	19:00	30.9	323	0.2	7.4	3.1	42.1	0.60
8/8/2003	19:15	30.8	322	0.2	7.3	3.0	40.3	0.59
8/8/2003	19:30	30.7	321	0.2	7.3	3.0	39.5	0.58
8/8/2003	19:45	30.6	319	0.2	7.3	3.0	40.5	0.60
8/8/2003	20:00	30.7	316	0.2	7.3	3.0	39.7	0.61
8/8/2003	20:15	30.7	313	0.2	7.3	3.0	40.3	0.62
8/8/2003	20:30	30.8	308	0.2	7.3	3.2	43.2	0.63
8/8/2003	20:45	30.8	304	0.2	7.3	3.3	43.7	0.63
8/8/2003	21:00	30.7	299	0.1	7.3	3.4	45.2	0.64
8/8/2003	21:15	30.6	295	0.1	7.3	3.3	44.3	0.64
8/8/2003	21:30	30.5	292	0.1	7.3	2.8	37.4	0.64

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/8/2003	21:45	30.4	292	0.1	7.2	2.4	32.0	0.65
8/8/2003	22:00	30.3	293	0.1	7.2	1.8	24.3	0.65
8/8/2003	22:15	30.2	296	0.1	7.2	1.5	20.2	0.65
8/8/2003	22:30	30.1	300	0.1	7.2	1.5	20.3	0.64
8/8/2003	22:45	30.1	305	0.2	7.2	1.5	19.9	0.62
8/8/2003	23:00	30.0	311	0.2	7.2	1.6	21.3	0.61
8/8/2003	23:15	30.0	315	0.2	7.3	1.8	24.1	0.60
8/8/2003	23:30	30.0	318	0.2	7.3	1.8	23.8	0.58
8/8/2003	23:45	30.0	320	0.2	7.3	1.9	24.8	0.58
8/9/2003	0:00	30.0	322	0.2	7.3	1.9	25.0	0.57
8/9/2003	0:15	30.0	323	0.2	7.3	1.9	24.4	0.56
8/9/2003	0:30	30.0	325	0.2	7.3	1.8	24.0	0.55
8/9/2003	0:45	30.0	326	0.2	7.3	1.8	23.2	0.55
8/9/2003	1:00	29.9	327	0.2	7.3	1.7	22.9	0.55
8/9/2003	1:15	29.9	327	0.2	7.3	1.6	21.0	0.55
8/9/2003	1:30	29.9	328	0.2	7.3	1.4	18.8	0.54
8/9/2003	1:45	29.9	330	0.2	7.3	1.7	22.2	0.53
8/9/2003	2:00	29.9	331	0.2	7.3	1.5	19.3	0.53
8/9/2003	2:15	29.8	331	0.2	7.3	1.5	20.3	0.52
8/9/2003	2:30	29.8	332	0.2	7.3	1.3	17.3	0.53
8/9/2003	2:45	29.8	332	0.2	7.3	1.3	17.1	0.52
8/9/2003	3:00	29.7	333	0.2	7.3	1.2	16.3	0.53
8/9/2003	3:15	29.7	334	0.2	7.3	1.2	15.7	0.53
8/9/2003	3:30	29.7	333	0.2	7.3	1.1	13.8	0.53
8/9/2003	3:45	29.6	334	0.2	7.3	0.9	12.4	0.53
8/9/2003	4:00	29.6	339	0.2	7.3	1.0	12.7	0.53
8/9/2003	4:15	29.6	338	0.2	7.3	1.0	12.6	0.53
8/9/2003	4:30	29.5	339	0.2	7.3	0.9	11.9	0.54
8/9/2003	4:45	29.5	339	0.2	7.3	0.8	10.9	0.54
8/9/2003	5:00	29.5	339	0.2	7.3	0.8	10.6	0.54
8/9/2003	5:15	29.5	340	0.2	7.3	0.7	9.4	0.54

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/9/2003	5:30	29.5	341	0.2	7.3	0.7	9.3	0.54
8/9/2003	5:45	29.4	343	0.2	7.3	0.7	8.8	0.55
8/9/2003	6:00	29.4	336	0.2	7.3	0.6	7.6	0.55
8/9/2003	6:15	29.3	335	0.2	7.3	0.6	7.2	0.55
8/9/2003	6:30	29.3	333	0.2	7.3	0.6	8.2	0.56
8/9/2003	6:45	29.2	332	0.2	7.3	0.6	8.0	0.56
8/9/2003	7:00	29.2	332	0.2	7.3	0.6	7.5	0.57
8/9/2003	7:15	29.2	331	0.2	7.3	0.6	8.2	0.57
8/9/2003	7:30	29.2	330	0.2	7.3	0.7	8.4	0.58
8/9/2003	7:45	29.1	330	0.2	7.3	0.6	7.7	0.58
8/9/2003	8:00	29.1	329	0.2	7.3	0.5	7.0	0.59
8/9/2003	8:15	29.1	330	0.2	7.3	0.5	6.9	0.59
8/9/2003	8:30	29.1	330	0.2	7.3	0.5	6.8	0.59
8/9/2003	8:45	29.1	332	0.2	7.3	0.5	6.6	0.60
8/9/2003	9:00	29.2	330	0.2	7.3	0.6	7.2	0.60
8/9/2003	9:15	29.2	329	0.2	7.3	0.6	7.8	0.61
8/9/2003	9:30	29.2	331	0.2	7.3	0.7	8.4	0.61
8/9/2003	9:45	29.3	327	0.2	7.3	0.8	9.9	0.62
8/9/2003	10:00	29.4	327	0.2	7.3	1.0	12.9	0.60
8/9/2003	10:15	29.4	327	0.2	7.3	0.9	11.7	0.62
8/9/2003	10:30	29.4	329	0.2	7.3	0.9	11.7	0.63
8/9/2003	10:45	29.5	328	0.2	7.3	0.9	12.3	0.62
8/9/2003	11:00	29.5	329	0.2	7.3	0.9	12.4	0.62
8/9/2003	11:15	29.6	328	0.2	7.3	1.1	13.9	0.63
8/9/2003	11:30	29.6	332	0.2	7.3	1.1	14.2	0.64
8/9/2003	11:45	29.7	328	0.2	7.3	1.2	15.4	0.64
8/9/2003	12:00	29.8	327	0.2	7.3	1.2	15.2	0.64
8/9/2003	12:15	29.9	326	0.2	7.3	1.5	20.0	0.65
8/9/2003	12:30	29.9	326	0.2	7.3	1.6	20.7	0.64
8/9/2003	12:45	30.0	326	0.2	7.3	1.5	19.8	0.64
8/9/2003	13:00	30.0	329	0.2	7.3	1.6	20.8	0.65

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/9/2003	13:15	30.1	327	0.2	7.3	1.7	22.9	0.66
8/9/2003	13:30	30.1	332	0.2	7.3	1.7	22.3	0.66
8/9/2003	13:45	30.2	330	0.2	7.3	1.7	22.8	0.65
8/9/2003	14:00	30.2	331	0.2	7.3	1.7	22.4	0.65
8/9/2003	14:15	30.3	329	0.2	7.3	1.7	22.8	0.65
8/9/2003	14:30	30.4	330	0.2	7.4	2.2	28.7	0.66
8/9/2003	14:45	30.5	328	0.2	7.4	2.0	26.4	0.65
8/9/2003	15:00	30.4	334	0.2	7.4	1.8	23.6	0.66
8/9/2003	15:15	30.6	331	0.2	7.4	2.0	26.6	0.66
8/9/2003	15:30	30.7	334	0.2	7.4	2.3	30.8	0.65
8/9/2003	15:45	30.8	330	0.2	7.4	2.2	29.6	0.65
8/9/2003	16:00	30.8	328	0.2	7.4	2.1	28.5	0.65
8/9/2003	16:15	30.8	327	0.2	7.4	2.6	34.4	0.65
8/9/2003	16:30	30.8	327	0.2	7.4	2.5	33.5	0.65
8/9/2003	16:45	30.7	329	0.2	7.4	2.7	36.2	0.64
8/9/2003	17:00	30.8	332	0.2	7.4	3.0	39.9	0.65
8/9/2003	17:15	30.8	332	0.2	7.5	3.0	40.8	0.64
8/9/2003	17:30	30.8	333	0.2	7.4	3.0	39.6	0.64
8/9/2003	17:45	30.8	333	0.2	7.5	2.9	39.3	0.64
8/9/2003	18:00	30.8	335	0.2	7.4	3.0	40.5	0.64
8/9/2003	18:15	30.7	334	0.2	7.4	3.0	39.5	0.63
8/9/2003	18:30	30.7	334	0.2	7.4	2.7	36.1	0.63
8/9/2003	18:45	30.6	335	0.2	7.4	3.0	40.3	0.62
8/9/2003	19:00	30.6	336	0.2	7.4	2.8	36.9	0.62
8/9/2003	19:15	30.6	336	0.2	7.4	2.5	32.9	0.63
8/9/2003	19:30	30.5	336	0.2	7.4	2.4	32.3	0.62
8/9/2003	19:45	30.5	336	0.2	7.4	2.6	35.1	0.61
8/9/2003	20:00	30.5	336	0.2	7.4	2.4	32.4	0.62
8/9/2003	20:15	30.5	337	0.2	7.4	2.2	29.3	0.62
8/9/2003	20:30	30.4	337	0.2	7.4	2.4	32.6	0.61
8/9/2003	20:45	30.4	338	0.2	7.4	2.3	30.1	0.62

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/9/2003	21:00	30.4	338	0.2	7.4	2.1	28.3	0.61
8/9/2003	21:15	30.4	338	0.2	7.4	2.3	30.2	0.60
8/9/2003	21:30	30.4	339	0.2	7.4	2.1	28.1	0.60
8/9/2003	21:45	30.4	340	0.2	7.4	2.1	28.5	0.60
8/9/2003	22:00	30.4	340	0.2	7.4	2.0	27.0	0.60
8/9/2003	22:15	30.3	340	0.2	7.4	1.9	25.4	0.59
8/9/2003	22:30	30.3	340	0.2	7.4	1.9	24.8	0.59
8/9/2003	22:45	30.3	340	0.2	7.4	1.8	24.3	0.59
8/9/2003	23:00	30.3	341	0.2	7.4	1.9	24.6	0.58
8/9/2003	23:15	30.3	341	0.2	7.4	1.9	24.8	0.58
8/9/2003	23:30	30.3	342	0.2	7.4	1.7	22.3	0.58
8/9/2003	23:45	30.3	341	0.2	7.4	1.8	23.7	0.58
8/10/2003	0:00	30.3	342	0.2	7.4	1.6	21.3	0.58
8/10/2003	0:15	30.3	342	0.2	7.4	1.7	22.7	0.58
8/10/2003	0:30	30.3	341	0.2	7.4	1.7	23.1	0.58
8/10/2003	0:45	30.3	342	0.2	7.4	1.6	21.1	0.57
8/10/2003	1:00	30.3	343	0.2	7.4	1.8	24.3	0.57
8/10/2003	1:15	30.2	343	0.2	7.4	1.7	22.0	0.57
8/10/2003	1:30	30.2	343	0.2	7.4	1.6	20.7	0.57
8/10/2003	1:45	30.2	343	0.2	7.4	1.5	20.2	0.56
8/10/2003	2:00	30.1	343	0.2	7.4	1.6	20.9	0.56
8/10/2003	2:15	30.1	342	0.2	7.4	1.5	19.4	0.56
8/10/2003	2:30	30.1	342	0.2	7.4	1.4	18.8	0.56
8/10/2003	2:45	30.1	344	0.2	7.4	1.6	21.4	0.55
8/10/2003	3:00	30.1	342	0.2	7.4	1.6	21.3	0.55
8/10/2003	3:15	30.0	343	0.2	7.4	1.6	20.5	0.55
8/10/2003	3:30	30.0	343	0.2	7.4	1.5	19.4	0.55
8/10/2003	3:45	30.0	343	0.2	7.4	1.4	17.9	0.55
8/10/2003	4:00	30.0	342	0.2	7.4	1.3	17.8	0.55
8/10/2003	4:15	29.9	342	0.2	7.4	1.3	17.2	0.55
8/10/2003	4:30	29.9	349	0.2	7.4	1.3	17.1	0.55

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/10/2003	4:45	29.9	347	0.2	7.4	1.2	16.1	0.55
8/10/2003	5:00	29.9	347	0.2	7.4	1.2	16.0	0.56
8/10/2003	5:15	29.8	345	0.2	7.4	1.1	14.4	0.55
8/10/2003	5:30	29.8	348	0.2	7.4	1.1	14.5	0.56
8/10/2003	5:45	29.8	347	0.2	7.3	1.0	12.7	0.55
8/10/2003	6:00	29.8	353	0.2	7.3	1.1	14.1	0.57
8/10/2003	6:15	29.7	350	0.2	7.3	1.1	14.1	0.55
8/10/2003	6:30	29.7	349	0.2	7.3	0.9	11.7	0.57
8/10/2003	6:45	29.7	346	0.2	7.3	0.9	11.3	0.58
8/10/2003	7:00	29.6	349	0.2	7.3	0.6	8.3	0.56
8/10/2003	7:15	29.6	347	0.2	7.3	0.7	9.3	0.58
8/10/2003	7:30	29.6	346	0.2	7.3	0.6	8.2	0.58
8/10/2003	7:45	29.6	346	0.2	7.3	0.6	7.4	0.58
8/10/2003	8:00	29.5	345	0.2	7.3	0.6	8.3	0.59
8/10/2003	8:15	29.5	346	0.2	7.3	0.7	9.2	0.58
8/10/2003	8:30	29.5	348	0.2	7.3	0.7	8.8	0.59
8/10/2003	8:45	29.5	345	0.2	7.3	0.8	9.8	0.60
8/10/2003	9:00	29.5	346	0.2	7.3	0.6	8.4	0.60
8/10/2003	9:15	29.5	346	0.2	7.3	0.7	9.0	0.60
8/10/2003	9:30	29.6	345	0.2	7.3	0.7	8.9	0.60
8/10/2003	9:45	29.6	346	0.2	7.3	0.7	9.7	0.61
8/10/2003	10:00	29.6	346	0.2	7.3	0.8	10.6	0.61
8/10/2003	10:15	29.7	345	0.2	7.4	1.1	14.1	0.63
8/10/2003	10:30	29.7	346	0.2	7.4	1.0	13.8	0.62
8/10/2003	10:45	29.8	347	0.2	7.4	1.1	14.9	0.63
8/10/2003	11:00	29.8	347	0.2	7.4	1.2	15.6	0.63
8/10/2003	11:15	29.9	345	0.2	7.4	1.4	18.0	0.63
8/10/2003	11:30	29.9	348	0.2	7.4	1.3	16.6	0.62
8/10/2003	11:45	30.0	349	0.2	7.4	1.4	18.7	0.63
8/10/2003	12:00	30.1	348	0.2	7.4	1.6	20.9	0.64
8/10/2003	12:15	30.1	345	0.2	7.4	1.5	19.6	0.64

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/10/2003	12:30	30.2	345	0.2	7.4	1.7	21.9	0.64
8/10/2003	12:45	30.3	344	0.2	7.4	2.0	25.9	0.64
8/10/2003	13:00	30.4	343	0.2	7.4	2.3	30.4	0.65
8/10/2003	13:15	30.6	344	0.2	7.5	2.4	32.5	0.65
8/10/2003	13:30	30.5	345	0.2	7.5	2.3	31.2	0.65
8/10/2003	13:45	30.5	345	0.2	7.5	2.3	30.6	0.66
8/10/2003	14:00	30.6	344	0.2	7.5	2.4	32.1	0.65
8/10/2003	14:15	30.7	342	0.2	7.5	2.4	32.7	0.66
8/10/2003	14:30	30.7	342	0.2	7.5	2.4	32.1	0.66
8/10/2003	14:45	30.8	342	0.2	7.5	2.5	33.9	0.66
8/10/2003	15:00	30.9	344	0.2	7.5	2.6	34.9	0.66
8/10/2003	15:15	30.8	345	0.2	7.5	2.4	32.6	0.66
8/10/2003	15:30	31.0	344	0.2	7.5	2.6	34.5	0.66
8/10/2003	15:45	31.0	344	0.2	7.5	2.7	36.0	0.66
8/10/2003	16:00	31.1	346	0.2	7.5	2.8	37.5	0.67
8/10/2003	16:15	31.2	346	0.2	7.5	3.2	43.0	0.66
8/10/2003	16:30	31.3	348	0.2	7.5	3.3	44.3	0.66
8/10/2003	16:45	31.4	349	0.2	7.5	3.1	41.5	0.66
8/10/2003	17:00	31.3	347	0.2	7.5	3.3	44.2	0.66
8/10/2003	17:15	31.3	350	0.2	7.5	3.0	40.3	0.66
8/10/2003	17:30	31.4	346	0.2	7.5	3.4	46.0	0.66
8/10/2003	17:45	31.5	346	0.2	7.5	3.6	48.2	0.65
8/10/2003	18:00	31.5	347	0.2	7.5	3.5	47.9	0.65
8/10/2003	18:15	31.5	347	0.2	7.5	3.7	49.9	0.65
8/10/2003	18:30	31.5	348	0.2	7.6	3.8	51.9	0.64
8/10/2003	18:45	31.4	348	0.2	7.6	4.1	55.3	0.64
8/10/2003	19:00	31.3	348	0.2	7.6	3.7	50.6	0.64
8/10/2003	19:15	31.2	347	0.2	7.6	3.7	50.3	0.63
8/10/2003	19:30	31.2	348	0.2	7.6	3.6	48.0	0.63
8/10/2003	19:45	31.1	348	0.2	7.5	3.3	45.0	0.63
8/10/2003	20:00	31.0	348	0.2	7.5	3.4	46.3	0.62

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/10/2003	20:15	30.9	348	0.2	7.5	3.3	44.4	0.63
8/10/2003	20:30	30.9	348	0.2	7.5	3.3	44.9	0.63
8/10/2003	20:45	30.9	348	0.2	7.5	2.8	37.9	0.62
8/10/2003	21:00	30.9	348	0.2	7.5	2.7	35.7	0.62
8/10/2003	21:15	30.8	348	0.2	7.5	2.5	34.1	0.62
8/10/2003	21:30	30.8	349	0.2	7.5	2.5	33.7	0.61
8/10/2003	21:45	30.8	349	0.2	7.5	2.4	32.1	0.63
8/10/2003	22:00	30.7	348	0.2	7.5	2.8	37.5	0.60
8/10/2003	22:15	30.7	348	0.2	7.5	2.6	34.2	0.61
8/10/2003	22:30	30.7	348	0.2	7.5	2.4	31.5	0.60
8/10/2003	22:45	30.6	348	0.2	7.5	2.5	33.6	0.59
8/10/2003	23:00	30.6	348	0.2	7.5	2.3	30.3	0.61
8/10/2003	23:15	30.6	350	0.2	7.5	2.2	29.0	0.60
8/10/2003	23:30	30.5	349	0.2	7.5	2.0	27.0	0.60
8/10/2003	23:45	30.5	348	0.2	7.5	2.3	30.8	0.59
8/11/2003	0:00	30.5	348	0.2	7.5	2.0	26.1	0.60
8/11/2003	0:15	30.5	348	0.2	7.5	2.3	30.1	0.59
8/11/2003	0:30	30.4	348	0.2	7.5	2.0	26.5	0.59
8/11/2003	0:45	30.4	347	0.2	7.4	1.7	22.7	0.58
8/11/2003	1:00	30.4	347	0.2	7.4	1.9	25.7	0.58
8/11/2003	1:15	30.4	347	0.2	7.4	1.8	24.5	0.58
8/11/2003	1:30	30.4	346	0.2	7.4	2.3	30.3	0.57
8/11/2003	1:45	30.3	346	0.2	7.4	2.3	30.0	0.58
8/11/2003	2:00	30.3	346	0.2	7.4	2.4	31.4	0.57
8/11/2003	2:15	30.3	345	0.2	7.4	2.5	33.7	0.57
8/11/2003	2:30	30.3	345	0.2	7.4	2.3	30.8	0.57
8/11/2003	2:45	30.3	345	0.2	7.4	2.6	34.9	0.56
8/11/2003	3:00	30.2	345	0.2	7.4	2.6	34.5	0.56
8/11/2003	3:15	30.2	345	0.2	7.4	2.6	35.0	0.55
8/11/2003	3:30	30.2	344	0.2	7.4	2.6	34.7	0.57
8/11/2003	3:45	30.1	345	0.2	7.4	2.5	33.2	0.56

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/11/2003	4:00	30.1	344	0.2	7.4	2.2	29.8	0.57
8/11/2003	4:15	30.1	344	0.2	7.4	2.0	26.3	0.56
8/11/2003	4:30	30.1	344	0.2	7.4	2.0	25.9	0.56
8/11/2003	4:45	30.0	344	0.2	7.4	1.8	23.3	0.57
8/11/2003	5:00	30.0	344	0.2	7.4	1.7	21.8	0.57
8/11/2003	5:15	30.0	344	0.2	7.4	1.5	19.9	0.56
8/11/2003	5:30	30.0	345	0.2	7.4	1.5	19.6	0.56
8/11/2003	5:45	29.9	344	0.2	7.4	1.5	19.2	0.56
8/11/2003	6:00	29.9	349	0.2	7.4	1.5	20.1	0.57
8/11/2003	6:15	29.9	348	0.2	7.4	1.4	19.0	0.57
8/11/2003	6:30	29.9	348	0.2	7.4	1.4	18.7	0.56
8/11/2003	6:45	29.8	349	0.2	7.4	1.2	15.8	0.57
8/11/2003	7:00	29.8	348	0.2	7.4	1.5	19.1	0.57
8/11/2003	7:15	29.7	348	0.2	7.4	1.3	17.5	0.59
8/11/2003	7:30	29.7	348	0.2	7.4	1.3	16.7	0.59
8/11/2003	7:45	29.7	348	0.2	7.4	1.1	14.9	0.58
8/11/2003	8:00	29.6	349	0.2	7.4	1.1	14.3	0.58
8/11/2003	8:15	29.6	349	0.2	7.4	1.0	13.1	0.58
8/11/2003	8:30	29.6	350	0.2	7.4	1.0	13.1	0.60
8/11/2003	8:45	29.6	350	0.2	7.4	1.1	14.9	0.60
8/11/2003	9:00	29.6	350	0.2	7.4	1.1	14.6	0.60
8/11/2003	9:15	29.7	351	0.2	7.4	1.1	15.0	0.60
8/11/2003	9:30	29.7	353	0.2	7.4	1.2	16.0	0.61
8/11/2003	9:45	29.7	353	0.2	7.4	1.2	15.9	0.61
8/11/2003	10:00	29.7	357	0.2	7.4	1.2	15.9	0.62
8/11/2003	10:15	29.8	352	0.2	7.4	1.4	18.3	0.62
8/11/2003	10:30	29.9	352	0.2	7.4	1.5	20.0	0.62
8/11/2003	10:45	29.9	354	0.2	7.4	1.6	21.4	0.63
8/11/2003	11:00	30.0	353	0.2	7.4	1.8	24.0	0.63
8/11/2003	11:15	30.1	352	0.2	7.4	2.0	26.1	0.63
8/11/2003	11:30	30.1	353	0.2	7.4	2.0	26.0	0.64

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/11/2003	11:45	30.1	353	0.2	7.4	1.9	25.5	0.64
8/11/2003	12:00	30.1	355	0.2	7.4	2.0	26.3	0.65
8/11/2003	12:15	30.3	353	0.2	7.5	2.2	29.8	0.65
8/11/2003	12:30	30.3	355	0.2	7.5	2.3	30.7	0.65
8/11/2003	12:45	30.3	354	0.2	7.5	2.4	31.7	0.66
8/11/2003	13:00	30.4	353	0.2	7.5	2.6	34.0	0.66
8/11/2003	13:15	30.4	352	0.2	7.5	2.5	33.7	0.67
8/11/2003	13:30	30.6	351	0.2	7.5	2.8	37.4	0.65
8/11/2003	13:45	30.6	353	0.2	7.5	3.0	40.2	0.66
8/11/2003	14:00	28.1		.	7.9	7.4	94.3	0.01
8/11/2003	14:15	31.2	373	0.2	7.4	2.6	34.4	0.01
8/11/2003	14:30	31.9	373	0.2	7.5	2.7	36.5	0.02
8/11/2003	14:45	32.4	374	0.2	7.6	3.2	43.4	0.01
8/11/2003	15:00	32.9	374	0.2	7.6	3.1	42.6	0.02
8/11/2003	15:15	33.3	375	0.2	7.7	3.4	47.4	0.01
8/11/2003	15:30	33.5	376	0.2	7.7	3.5	49.6	0.02
8/11/2003	15:45	33.7	376	0.2	7.8	3.9	54.3	0.02
8/11/2003	16:00	33.8	378	0.2	7.8	4.1	57.9	0.02
8/11/2003	16:15	33.8	378	0.2	7.9	4.2	59.4	0.01
8/11/2003	16:30	33.9	379	0.2	7.9	4.4	61.8	0.01
8/11/2003	16:45	34.0	379	0.2	8.0	4.5	63.3	0.02
8/11/2003	17:00	33.9	379	0.2	7.9	4.4	62.3	0.02
8/11/2003	17:15	33.9	380	0.2	7.9	4.4	62.8	0.02
8/11/2003	17:30	33.8	381	0.2	7.9	4.4	61.4	0.02
8/11/2003	17:45	33.7	382	0.2	7.9	4.3	60.9	0.02
8/11/2003	18:00	33.6	383	0.2	7.9	4.3	60.7	0.02
8/11/2003	18:15	33.5	384	0.2	7.9	4.3	60.4	0.02
8/11/2003	18:30	33.4	384	0.2	7.9	4.3	59.6	0.02
8/11/2003	18:45	33.3	385	0.2	7.9	4.2	59.1	0.02
8/11/2003	19:00	33.2	386	0.2	7.9	4.2	58.2	0.02
8/11/2003	19:15	33.0	386	0.2	7.9	4.1	57.3	0.02

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

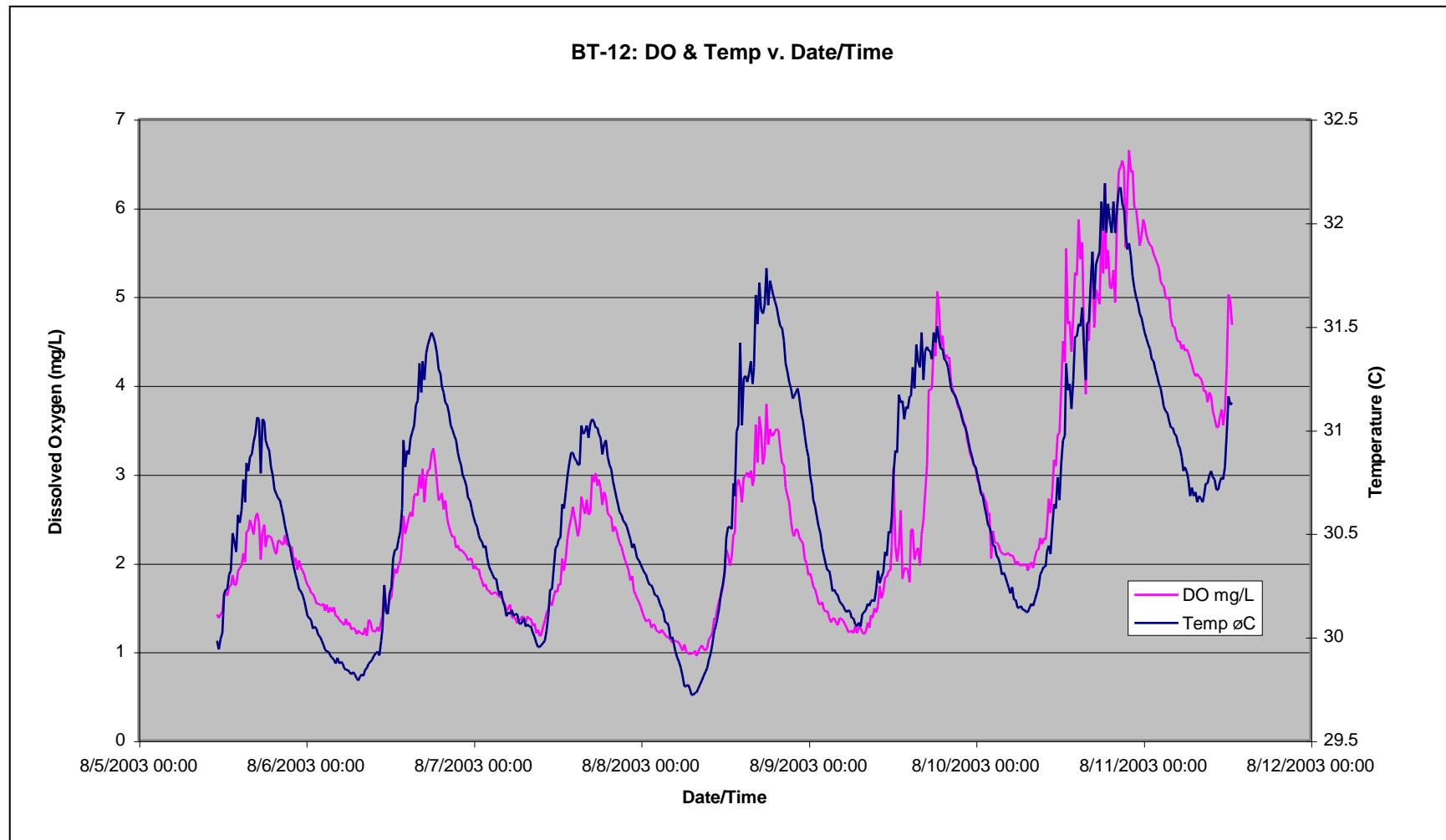
8/11/2003	19:30	32.9	387	0.2	7.9	4.1	56.3	0.02
8/11/2003	19:45	32.7	387	0.2	7.9	4.0	55.2	0.02
8/11/2003	20:00	32.6	387	0.2	7.9	3.9	54.6	0.02
8/11/2003	20:15	32.4	388	0.2	7.9	3.9	53.8	0.02
8/11/2003	20:30	32.2	388	0.2	7.9	3.8	52.9	0.01
8/11/2003	20:45	32.0	389	0.2	7.9	3.9	53.2	0.02
8/11/2003	21:00	31.8	389	0.2	7.9	3.9	52.7	0.01
8/11/2003	21:15	31.7	389	0.2	7.9	3.8	51.9	0.02
8/11/2003	21:30	31.5	390	0.2	7.9	3.8	51.0	0.01
8/11/2003	21:45	31.3	390	0.2	7.9	3.7	50.7	0.02
8/11/2003	22:00	31.2	391	0.2	7.9	3.7	50.4	0.01
8/11/2003	22:15	31.0	391	0.2	7.9	3.7	49.2	0.01
8/11/2003	22:30	30.8	391	0.2	7.9	3.7	49.3	0.01
8/11/2003	22:45	30.7	391	0.2	7.9	3.7	49.1	0.01
8/11/2003	23:00	30.5	392	0.2	7.9	3.6	48.2	0.01
8/11/2003	23:15	30.4	392	0.2	7.9	3.7	48.7	0.01
8/11/2003	23:30	30.3	392	0.2	7.9	3.7	48.9	0.01
8/11/2003	23:45	30.2	393	0.2	7.9	3.6	47.8	0.01
8/12/2003	0:00	30.1	393	0.2	7.9	3.6	47.7	0.01
8/12/2003	0:15	29.9	393	0.2	7.9	3.5	46.7	0.01
8/12/2003	0:30	29.8	394	0.2	7.9	3.6	47.2	0.01
8/12/2003	0:45	29.7	394	0.2	7.9	3.5	46.7	0.01
8/12/2003	1:00	29.6	394	0.2	7.9	3.6	47.1	0.01
8/12/2003	1:15	29.5	394	0.2	7.9	3.6	46.7	0.01
8/12/2003	1:30	29.4	395	0.2	8.0	3.5	46.5	0.01
8/12/2003	1:45	29.3	395	0.2	8.0	3.5	46.2	0.01
8/12/2003	2:00	29.2	395	0.2	8.0	3.6	46.3	0.01
8/12/2003	2:15	29.1	395	0.2	8.0	3.6	46.8	0.01
8/12/2003	2:30	28.9	395	0.2	8.0	3.6	46.2	0.01
8/12/2003	2:45	28.8	396	0.2	8.0	3.6	46.7	0.01
8/12/2003	3:00	28.7	396	0.2	8.0	3.6	46.3	0.01

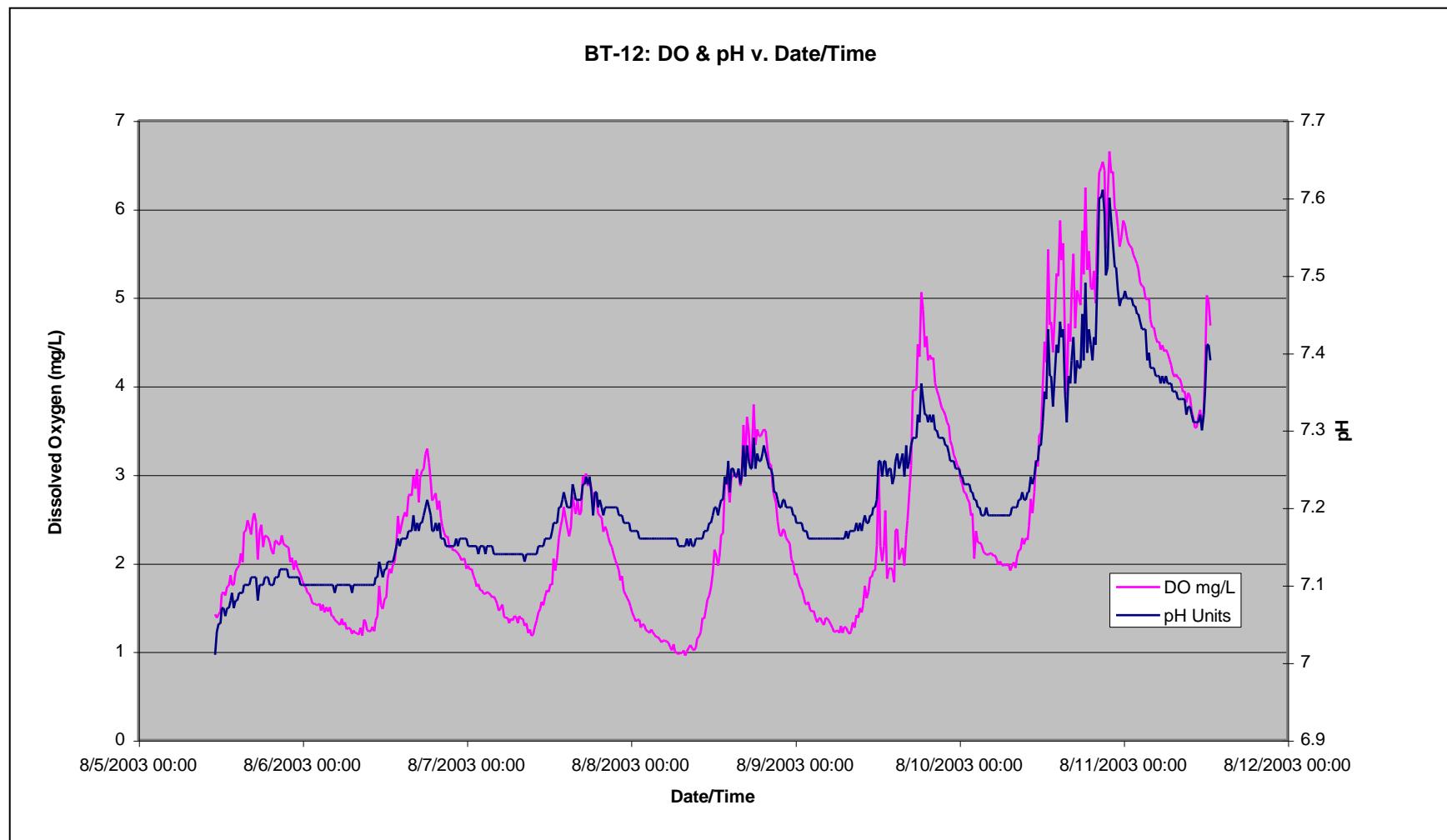
Bayou Terrebonne Watershed TMDL

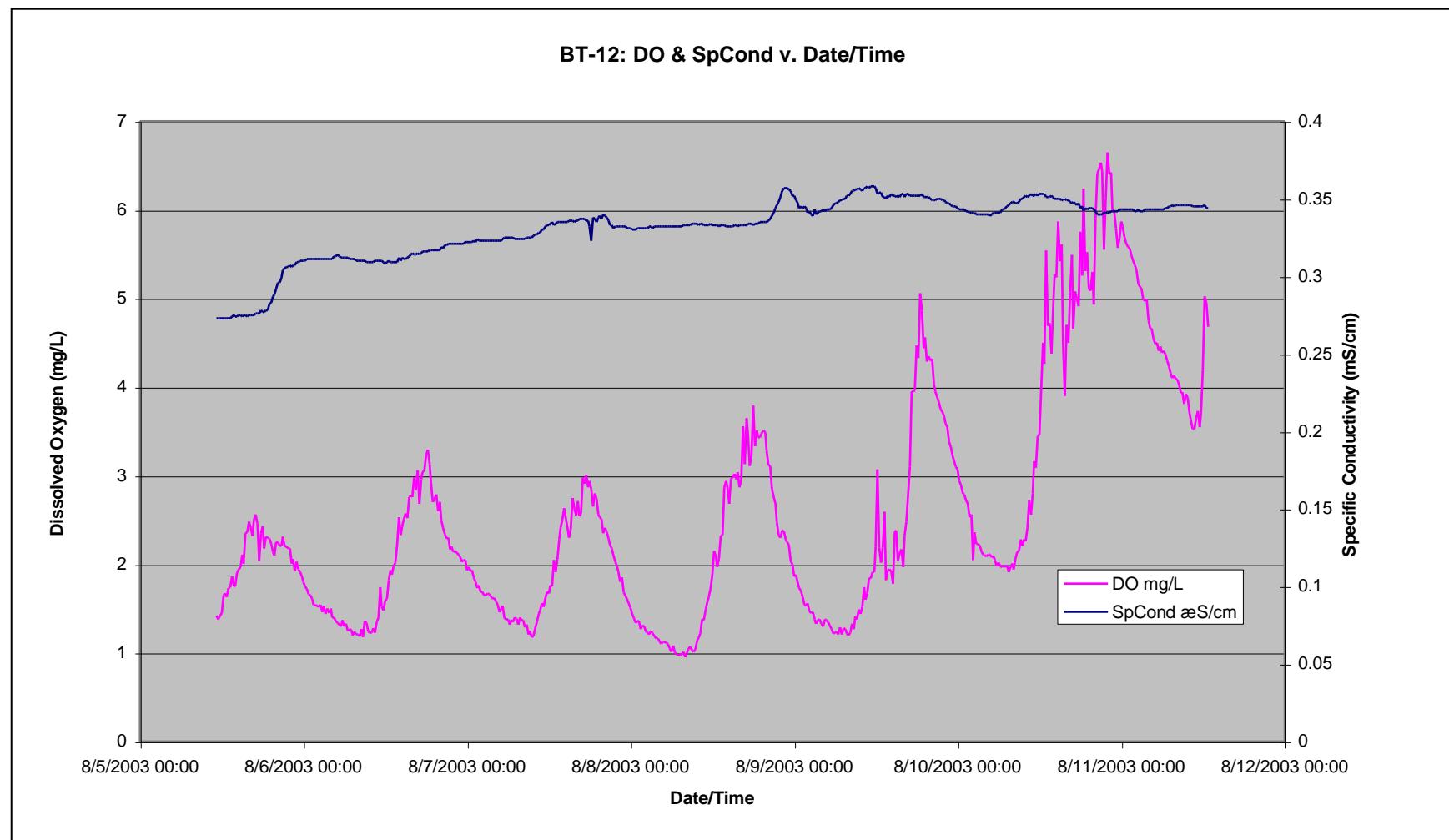
Subsegment 120301

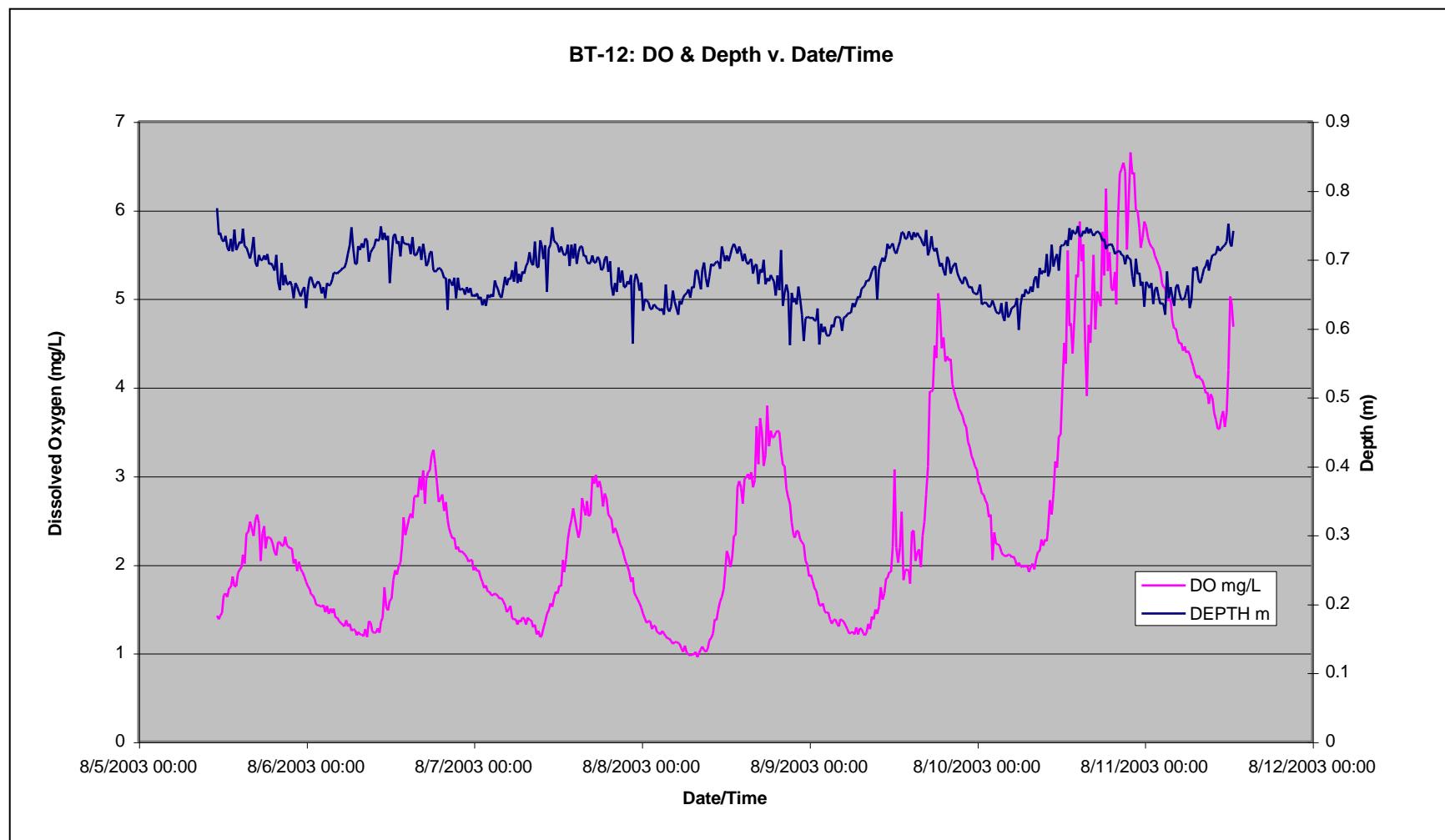
Originated: March 19, 2008

8/12/2003	3:15	28.6	396	0.2	8.0	3.6	46.1	0.01
8/12/2003	3:30	28.5	396	0.2	8.0	3.6	46.2	0.01
8/12/2003	3:45	28.4	396	0.2	8.0	3.6	46.5	0.01
8/12/2003	4:00	28.3	397	0.2	8.0	3.6	46.2	0.01
8/12/2003	4:15	28.2	397	0.2	8.0	3.6	45.8	0.01
8/12/2003	4:30	28.1	397	0.2	8.0	3.5	45.3	0.01
8/12/2003	4:45	28.0	397	0.2	8.0	3.6	45.8	0.01
8/12/2003	5:00	27.9	397	0.2	8.0	3.6	45.9	0.01
8/12/2003	5:15	27.8	398	0.2	8.0	3.6	46.1	0.01
8/12/2003	5:30	27.8	398	0.2	8.0	3.7	46.5	0.01
8/12/2003	5:45	27.7	398	0.2	8.0	3.7	46.4	0.01
8/12/2003	6:00	27.7	398	0.2	8.0	3.7	46.4	0.01
8/12/2003	6:15	27.6	398	0.2	8.0	3.6	45.9	0.01
8/12/2003	6:30	27.6	399	0.2	8.0	3.6	46.2	0.01
8/12/2003	6:45	27.5	399	0.2	8.0	3.6	46.0	0.01
8/12/2003	7:00	27.5	399	0.2	8.0	3.7	46.3	0.01
8/12/2003	7:15	27.5	400	0.2	8.0	3.6	45.9	0.01
8/12/2003	7:30	27.4	400	0.2	8.0	3.6	46.1	0.01
8/12/2003	7:45	27.4	400	0.2	8.0	3.7	46.7	0.01
8/12/2003	8:00	27.4	400	0.2	8.0	3.7	46.9	0.01
8/12/2003	8:15	27.3	401	0.2	8.0	3.7	46.6	0.01
8/12/2003	8:30	27.3	401	0.2	8.0	3.7	47.0	0.01
8/12/2003	8:45	27.3	401	0.2	8.0	3.7	46.9	0.01
8/12/2003	9:00	27.2	402	0.2	8.0	3.6	45.0	0.01
8/12/2003	9:15	27.1	402	0.2	8.0	4.1	51.6	0.01
8/12/2003	9:30	26.7	403	0.2	8.1	4.6	57.1	0.01
8/12/2003	9:45	26.2	403	0.2	8.1	5.2	64.3	.
8/12/2003	10:00	25.1	594	0.3	8.9	7.1	85.9	.









MiniSonde 4a 39003

Log File Name : BT12 080403

Setup Date (MMDDYY) : 080403

Setup Time (HHMMSS) : 102318

Starting Date (MMDDYY) : 080403

Starting Time (HHMMSS) : 235959

Stopping Date (MMDDYY) : 081103

Stopping Time (HHMMSS) : 235959

Interval (HHMMSS) : 001500

Sensor warmup (HHMMSS) : 000200

Circltr warmup (HHMMSS) : 000200

Date MMDDYY	Time HHMMSS	Temp °C	pH Units	SpCond mS/cm	Sal ppt	DO% Sat	DO mg/l	Depth meters
8/5/2003	11:14:59	30.0	7.0	0.273	0.1	18.8	1.4	0.77
8/5/2003	11:29:59	29.9	7.0	0.273	0.1	18.3	1.4	0.74
8/5/2003	11:44:59	30.0	7.1	0.273	0.1	18.8	1.4	0.74
8/5/2003	11:59:59	30.0	7.1	0.273	0.1	19.2	1.5	0.73
8/5/2003	12:14:59	30.2	7.1	0.273	0.1	22.0	1.7	0.73
8/5/2003	12:29:59	30.2	7.1	0.273	0.1	22.3	1.7	0.73
8/5/2003	12:44:59	30.2	7.1	0.273	0.1	21.6	1.6	0.72
8/5/2003	12:59:59	30.3	7.1	0.273	0.1	23.0	1.7	0.71
8/5/2003	13:14:59	30.3	7.1	0.273	0.1	23.2	1.7	0.73
8/5/2003	13:29:59	30.5	7.1	0.274	0.1	24.8	1.9	0.71
8/5/2003	13:44:59	30.5	7.1	0.275	0.1	23.4	1.8	0.74
8/5/2003	13:59:59	30.4	7.1	0.274	0.1	23.3	1.8	0.71
8/5/2003	14:14:59	30.6	7.1	0.274	0.1	25.5	1.9	0.72
8/5/2003	14:29:59	30.6	7.1	0.275	0.1	25.9	1.9	0.73

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	14:44:59	30.6	7.1	0.275	0.1	26.4	2.0	0.72
8/5/2003	14:59:59	30.8	7.1	0.274	0.1	28.4	2.1	0.74
8/5/2003	15:14:59	30.7	7.1	0.275	0.1	27.0	2.0	0.72
8/5/2003	15:29:59	30.8	7.1	0.275	0.1	31.5	2.4	0.72
8/5/2003	15:44:59	30.8	7.1	0.274	0.1	31.7	2.4	0.71
8/5/2003	15:59:59	30.9	7.1	0.275	0.1	33.3	2.5	0.70
8/5/2003	16:14:59	30.9	7.1	0.275	0.1	32.4	2.4	0.71
8/5/2003	16:29:59	30.9	7.1	0.275	0.1	31.2	2.3	0.73
8/5/2003	16:44:59	31.0	7.1	0.275	0.1	33.7	2.5	0.70
8/5/2003	16:59:59	31.1	7.1	0.276	0.1	34.5	2.6	0.69
8/5/2003	17:14:59	31.1	7.1	0.276	0.1	33.2	2.5	0.71
8/5/2003	17:29:59	30.8	7.1	0.276	0.1	27.4	2.0	0.70
8/5/2003	17:44:59	31.1	7.1	0.278	0.1	31.7	2.4	0.70
8/5/2003	17:59:59	31.0	7.1	0.277	0.1	32.8	2.4	0.71
8/5/2003	18:14:59	31.0	7.1	0.277	0.1	29.3	2.2	0.70
8/5/2003	18:29:59	30.9	7.1	0.278	0.1	31.1	2.3	0.71
8/5/2003	18:44:59	30.9	7.1	0.278	0.1	31.0	2.3	0.69
8/5/2003	18:59:59	30.8	7.1	0.282	0.1	30.8	2.3	0.69
8/5/2003	19:14:59	30.8	7.1	0.283	0.1	30.0	2.2	0.69
8/5/2003	19:29:59	30.7	7.1	0.287	0.1	28.7	2.1	0.68
8/5/2003	19:44:59	30.7	7.1	0.288	0.1	28.2	2.1	0.71
8/5/2003	19:59:59	30.7	7.1	0.292	0.1	30.1	2.3	0.67
8/5/2003	20:14:59	30.7	7.1	0.296	0.1	30.1	2.3	0.66
8/5/2003	20:29:59	30.6	7.1	0.296	0.1	29.6	2.2	0.69
8/5/2003	20:44:59	30.6	7.1	0.299	0.1	29.6	2.2	0.66
8/5/2003	20:59:59	30.5	7.1	0.304	0.2	30.9	2.3	0.68
8/5/2003	21:14:59	30.5	7.1	0.305	0.2	29.6	2.2	0.66
8/5/2003	21:29:59	30.5	7.1	0.306	0.2	29.4	2.2	0.66
8/5/2003	21:44:59	30.4	7.1	0.306	0.2	29.1	2.2	0.67
8/5/2003	21:59:59	30.4	7.1	0.307	0.2	29.1	2.2	0.66
8/5/2003	22:14:59	30.3	7.1	0.306	0.2	26.8	2.0	0.64

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	22:29:59	30.3	7.1	0.307	0.2	27.5	2.1	0.67
8/5/2003	22:44:59	30.3	7.1	0.307	0.2	25.5	1.9	0.66
8/5/2003	22:59:59	30.2	7.1	0.309	0.2	27.0	2.0	0.65
8/5/2003	23:14:59	30.2	7.1	0.309	0.2	25.8	1.9	0.65
8/5/2003	23:29:59	30.2	7.1	0.31	0.2	25.4	1.9	0.66
8/5/2003	23:44:59	30.2	7.1	0.31	0.2	24.7	1.9	0.66
8/5/2003	23:59:59	30.1	7.1	0.31	0.2	23.9	1.8	0.63
8/6/2003	0:14:59	30.1	7.1	0.31	0.2	23.2	1.8	0.66
8/6/2003	0:29:59	30.1	7.1	0.311	0.2	22.8	1.7	0.67
8/6/2003	0:44:59	30.1	7.1	0.311	0.2	22.1	1.7	0.67
8/6/2003	0:59:59	30.0	7.1	0.311	0.2	21.8	1.7	0.67
8/6/2003	1:14:59	30.1	7.1	0.311	0.2	21.3	1.6	0.66
8/6/2003	1:29:59	30.0	7.1	0.311	0.2	20.4	1.5	0.66
8/6/2003	1:44:59	30.0	7.1	0.311	0.2	20.4	1.5	0.67
8/6/2003	1:59:59	30.0	7.1	0.311	0.2	20.3	1.5	0.66
8/6/2003	2:14:59	30.0	7.1	0.311	0.2	20.2	1.5	0.65
8/6/2003	2:29:59	30.0	7.1	0.311	0.2	20.4	1.5	0.66
8/6/2003	2:44:59	29.9	7.1	0.311	0.2	19.3	1.5	0.64
8/6/2003	2:59:59	29.9	7.1	0.311	0.2	20.3	1.5	0.67
8/6/2003	3:14:59	29.9	7.1	0.311	0.2	19.1	1.4	0.66
8/6/2003	3:29:59	29.9	7.1	0.311	0.2	19.8	1.5	0.66
8/6/2003	3:44:59	29.9	7.1	0.311	0.2	19.2	1.5	0.67
8/6/2003	3:59:59	29.9	7.1	0.311	0.2	19.8	1.5	0.68
8/6/2003	4:14:59	29.9	7.1	0.311	0.2	18.5	1.4	0.68
8/6/2003	4:29:59	29.9	7.1	0.313	0.2	18.5	1.4	0.68
8/6/2003	4:44:59	29.9	7.1	0.313	0.2	18.0	1.4	0.68
8/6/2003	4:59:59	29.9	7.1	0.314	0.2	17.8	1.3	0.68
8/6/2003	5:14:59	29.9	7.1	0.313	0.2	17.5	1.3	0.69
8/6/2003	5:29:59	29.9	7.1	0.312	0.2	17.1	1.3	0.69
8/6/2003	5:44:59	29.8	7.1	0.312	0.2	18.1	1.4	0.70
8/6/2003	5:59:59	29.8	7.1	0.312	0.2	17.1	1.3	0.71

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	6:14:59	29.8	7.1	0.312	0.2	17.6	1.3	0.72
8/6/2003	6:29:59	29.8	7.1	0.312	0.2	16.5	1.3	0.75
8/6/2003	6:44:59	29.8	7.1	0.311	0.2	16.7	1.3	0.72
8/6/2003	6:59:59	29.8	7.1	0.311	0.2	16.6	1.3	0.69
8/6/2003	7:14:59	29.8	7.1	0.311	0.2	15.8	1.2	0.69
8/6/2003	7:29:59	29.8	7.1	0.311	0.2	16.4	1.2	0.72
8/6/2003	7:44:59	29.8	7.1	0.31	0.2	16.0	1.2	0.71
8/6/2003	7:59:59	29.8	7.1	0.31	0.2	15.9	1.2	0.72
8/6/2003	8:14:59	29.8	7.1	0.31	0.2	15.7	1.2	0.72
8/6/2003	8:29:59	29.8	7.1	0.31	0.2	16.8	1.3	0.73
8/6/2003	8:44:59	29.9	7.1	0.31	0.2	15.6	1.2	0.73
8/6/2003	8:59:59	29.9	7.1	0.31	0.2	18.0	1.4	0.70
8/6/2003	9:14:59	29.9	7.1	0.309	0.2	17.8	1.3	0.71
8/6/2003	9:29:59	29.9	7.1	0.309	0.2	16.4	1.2	0.71
8/6/2003	9:44:59	29.9	7.1	0.309	0.2	16.3	1.2	0.72
8/6/2003	9:59:59	29.9	7.1	0.309	0.2	16.3	1.2	0.73
8/6/2003	10:14:59	29.9	7.1	0.309	0.2	16.9	1.3	0.73
8/6/2003	10:29:59	29.9	7.1	0.31	0.2	16.3	1.2	0.73
8/6/2003	10:44:59	30.0	7.1	0.31	0.2	17.9	1.4	0.75
8/6/2003	10:59:59	30.0	7.1	0.31	0.2	18.5	1.4	0.73
8/6/2003	11:14:59	30.3	7.1	0.31	0.2	23.1	1.7	0.74
8/6/2003	11:29:59	30.1	7.1	0.31	0.2	20.2	1.5	0.73
8/6/2003	11:44:59	30.1	7.1	0.309	0.2	19.7	1.5	0.73
8/6/2003	11:59:59	30.2	7.1	0.308	0.2	21.1	1.6	0.67
8/6/2003	12:14:59	30.2	7.1	0.309	0.2	21.3	1.6	0.70
8/6/2003	12:29:59	30.4	7.1	0.31	0.2	24.3	1.8	0.73
8/6/2003	12:44:59	30.4	7.1	0.309	0.2	25.7	1.9	0.74
8/6/2003	12:59:59	30.4	7.1	0.309	0.2	25.1	1.9	0.72
8/6/2003	13:14:59	30.5	7.1	0.309	0.2	26.5	2.0	0.73
8/6/2003	13:29:59	30.5	7.1	0.309	0.2	27.0	2.0	0.70
8/6/2003	13:44:59	30.6	7.2	0.309	0.2	29.9	2.2	0.73

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	13:59:59	31.0	7.2	0.312	0.2	34.0	2.5	0.72
8/6/2003	14:14:59	30.8	7.2	0.31	0.2	31.2	2.3	0.72
8/6/2003	14:29:59	30.9	7.2	0.312	0.2	32.5	2.4	0.72
8/6/2003	14:44:59	30.9	7.2	0.311	0.2	33.7	2.5	0.72
8/6/2003	14:59:59	31.0	7.2	0.311	0.2	34.6	2.6	0.71
8/6/2003	15:14:59	31.0	7.2	0.312	0.2	34.0	2.5	0.73
8/6/2003	15:29:59	31.0	7.2	0.313	0.2	37.1	2.8	0.71
8/6/2003	15:44:59	31.1	7.2	0.314	0.2	37.6	2.8	0.71
8/6/2003	15:59:59	31.1	7.2	0.315	0.2	37.3	2.8	0.71
8/6/2003	16:14:59	31.3	7.2	0.314	0.2	40.4	3.0	0.72
8/6/2003	16:29:59	31.2	7.2	0.314	0.2	38.4	2.8	0.70
8/6/2003	16:44:59	31.3	7.2	0.315	0.2	41.5	3.1	0.72
8/6/2003	16:59:59	31.2	7.2	0.314	0.2	36.2	2.7	0.71
8/6/2003	17:14:59	31.4	7.2	0.315	0.2	40.1	3.0	0.69
8/6/2003	17:29:59	31.4	7.2	0.316	0.2	41.3	3.0	0.69
8/6/2003	17:44:59	31.4	7.2	0.316	0.2	41.5	3.1	0.71
8/6/2003	17:59:59	31.5	7.2	0.316	0.2	43.9	3.2	0.71
8/6/2003	18:14:59	31.5	7.2	0.316	0.2	44.6	3.3	0.68
8/6/2003	18:29:59	31.4	7.2	0.317	0.2	42.5	3.1	0.68
8/6/2003	18:44:59	31.4	7.2	0.317	0.2	39.6	2.9	0.68
8/6/2003	18:59:59	31.3	7.2	0.317	0.2	36.6	2.7	0.69
8/6/2003	19:14:59	31.3	7.2	0.317	0.2	37.1	2.7	0.69
8/6/2003	19:29:59	31.2	7.2	0.317	0.2	37.8	2.8	0.68
8/6/2003	19:44:59	31.2	7.2	0.317	0.2	35.2	2.6	0.67
8/6/2003	19:59:59	31.1	7.2	0.317	0.2	36.4	2.7	0.67
8/6/2003	20:14:59	31.1	7.2	0.319	0.2	33.8	2.5	0.63
8/6/2003	20:29:59	31.1	7.2	0.318	0.2	32.6	2.4	0.67
8/6/2003	20:44:59	31.0	7.2	0.32	0.2	31.6	2.3	0.67
8/6/2003	20:59:59	31.0	7.2	0.32	0.2	30.9	2.3	0.66
8/6/2003	21:14:59	31.0	7.2	0.321	0.2	31.0	2.3	0.67
8/6/2003	21:29:59	31.0	7.2	0.321	0.2	29.2	2.2	0.64

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	21:44:59	30.9	7.2	0.321	0.2	29.6	2.2	0.67
8/6/2003	21:59:59	30.9	7.2	0.321	0.2	28.8	2.1	0.66
8/6/2003	22:14:59	30.8	7.2	0.321	0.2	28.9	2.2	0.66
8/6/2003	22:29:59	30.8	7.2	0.321	0.2	28.6	2.1	0.66
8/6/2003	22:44:59	30.8	7.2	0.321	0.2	28.4	2.1	0.65
8/6/2003	22:59:59	30.7	7.2	0.321	0.2	27.9	2.1	0.66
8/6/2003	23:14:59	30.7	7.2	0.321	0.2	27.2	2.0	0.65
8/6/2003	23:29:59	30.7	7.2	0.321	0.2	27.5	2.1	0.66
8/6/2003	23:44:59	30.6	7.2	0.322	0.2	27.4	2.1	0.65
8/6/2003	23:59:59	30.6	7.2	0.322	0.2	25.8	1.9	0.65
8/7/2003	0:14:59	30.6	7.2	0.322	0.2	26.4	2.0	0.65
8/7/2003	0:29:59	30.5	7.2	0.322	0.2	25.7	1.9	0.65
8/7/2003	0:44:59	30.5	7.2	0.322	0.2	25.8	1.9	0.64
8/7/2003	0:59:59	30.5	7.2	0.323	0.2	24.7	1.9	0.65
8/7/2003	1:14:59	30.5	7.2	0.322	0.2	24.1	1.8	0.63
8/7/2003	1:29:59	30.4	7.2	0.324	0.2	23.1	1.7	0.64
8/7/2003	1:44:59	30.4	7.1	0.323	0.2	23.5	1.8	0.63
8/7/2003	1:59:59	30.4	7.2	0.323	0.2	22.5	1.7	0.65
8/7/2003	2:14:59	30.3	7.2	0.323	0.2	22.5	1.7	0.64
8/7/2003	2:29:59	30.3	7.2	0.323	0.2	21.9	1.7	0.65
8/7/2003	2:44:59	30.3	7.1	0.323	0.2	21.9	1.7	0.65
8/7/2003	2:59:59	30.3	7.2	0.323	0.2	22.3	1.7	0.67
8/7/2003	3:14:59	30.3	7.2	0.323	0.2	22.1	1.7	0.66
8/7/2003	3:29:59	30.2	7.2	0.323	0.2	21.8	1.6	0.66
8/7/2003	3:44:59	30.2	7.2	0.323	0.2	21.4	1.6	0.65
8/7/2003	3:59:59	30.2	7.1	0.323	0.2	21.6	1.6	0.64
8/7/2003	4:14:59	30.2	7.1	0.323	0.2	20.9	1.6	0.66
8/7/2003	4:29:59	30.2	7.1	0.323	0.2	20.4	1.5	0.67
8/7/2003	4:44:59	30.1	7.1	0.323	0.2	19.4	1.5	0.66
8/7/2003	4:59:59	30.1	7.1	0.323	0.2	19.8	1.5	0.67
8/7/2003	5:14:59	30.1	7.1	0.324	0.2	20.3	1.5	0.67

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/7/2003	5:29:59	30.1	7.1	0.325	0.2	18.4	1.4	0.68
8/7/2003	5:44:59	30.1	7.1	0.325	0.2	18.3	1.4	0.67
8/7/2003	5:59:59	30.1	7.1	0.325	0.2	18.3	1.4	0.70
8/7/2003	6:14:59	30.1	7.1	0.325	0.2	17.6	1.3	0.67
8/7/2003	6:29:59	30.1	7.1	0.325	0.2	18.1	1.4	0.68
8/7/2003	6:44:59	30.1	7.1	0.325	0.2	17.8	1.4	0.67
8/7/2003	6:59:59	30.1	7.1	0.324	0.2	18.6	1.4	0.68
8/7/2003	7:14:59	30.1	7.1	0.324	0.2	18.4	1.4	0.68
8/7/2003	7:29:59	30.1	7.1	0.324	0.2	17.5	1.3	0.69
8/7/2003	7:44:59	30.1	7.1	0.324	0.2	18.6	1.4	0.70
8/7/2003	7:59:59	30.1	7.1	0.324	0.2	18.1	1.4	0.71
8/7/2003	8:14:59	30.1	7.1	0.324	0.2	18.1	1.4	0.69
8/7/2003	8:29:59	30.0	7.1	0.324	0.2	17.1	1.3	0.69
8/7/2003	8:44:59	30.0	7.1	0.325	0.2	17.4	1.3	0.73
8/7/2003	8:59:59	30.0	7.1	0.325	0.2	16.0	1.2	0.69
8/7/2003	9:14:59	30.0	7.1	0.325	0.2	16.5	1.3	0.69
8/7/2003	9:29:59	30.0	7.1	0.325	0.2	15.6	1.2	0.73
8/7/2003	9:44:59	30.0	7.1	0.326	0.2	15.7	1.2	0.72
8/7/2003	9:59:59	30.0	7.1	0.327	0.2	16.9	1.3	0.70
8/7/2003	10:14:59	30.0	7.1	0.327	0.2	17.9	1.4	0.72
8/7/2003	10:29:59	30.0	7.2	0.328	0.2	19.0	1.4	0.65
8/7/2003	10:44:59	30.1	7.2	0.328	0.2	19.7	1.5	0.72
8/7/2003	10:59:59	30.2	7.2	0.33	0.2	20.7	1.6	0.72
8/7/2003	11:14:59	30.2	7.2	0.33	0.2	20.2	1.5	0.75
8/7/2003	11:29:59	30.3	7.2	0.332	0.2	21.6	1.6	0.73
8/7/2003	11:44:59	30.4	7.2	0.333	0.2	22.6	1.7	0.72
8/7/2003	11:59:59	30.4	7.2	0.333	0.2	22.3	1.7	0.72
8/7/2003	12:14:59	30.5	7.2	0.334	0.2	23.5	1.8	0.71
8/7/2003	12:29:59	30.5	7.2	0.335	0.2	23.4	1.8	0.72
8/7/2003	12:44:59	30.6	7.2	0.333	0.2	27.5	2.1	0.71
8/7/2003	12:59:59	30.6	7.2	0.334	0.2	25.6	1.9	0.71

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/7/2003	13:14:59	30.7	7.2	0.335	0.2	27.6	2.1	0.71
8/7/2003	13:29:59	30.8	7.2	0.335	0.2	30.6	2.3	0.72
8/7/2003	13:44:59	30.8	7.2	0.335	0.2	32.4	2.4	0.69
8/7/2003	13:59:59	30.9	7.2	0.335	0.2	33.7	2.5	0.72
8/7/2003	14:14:59	30.9	7.2	0.335	0.2	35.4	2.6	0.70
8/7/2003	14:29:59	30.9	7.2	0.335	0.2	33.7	2.5	0.72
8/7/2003	14:44:59	30.9	7.2	0.335	0.2	32.2	2.4	0.69
8/7/2003	14:59:59	30.8	7.2	0.336	0.2	30.9	2.3	0.71
8/7/2003	15:14:59	30.8	7.2	0.336	0.2	32.2	2.4	0.72
8/7/2003	15:29:59	31.0	7.2	0.336	0.2	37.1	2.8	0.72
8/7/2003	15:44:59	31.0	7.2	0.335	0.2	35.4	2.6	0.70
8/7/2003	15:59:59	31.0	7.2	0.336	0.2	34.3	2.6	0.71
8/7/2003	16:14:59	31.0	7.2	0.336	0.2	36.6	2.7	0.70
8/7/2003	16:29:59	31.0	7.2	0.337	0.2	34.3	2.5	0.69
8/7/2003	16:44:59	31.0	7.2	0.337	0.2	34.7	2.6	0.70
8/7/2003	16:59:59	31.1	7.2	0.337	0.2	40.2	3.0	0.71
8/7/2003	17:14:59	31.0	7.2	0.337	0.2	39.3	2.9	0.70
8/7/2003	17:29:59	31.0	7.2	0.336	0.2	40.5	3.0	0.70
8/7/2003	17:44:59	31.0	7.2	0.336	0.2	38.7	2.9	0.70
8/7/2003	17:59:59	31.0	7.2	0.332	0.2	39.7	2.9	0.70
8/7/2003	18:14:59	31.0	7.2	0.323	0.2	38.4	2.9	0.68
8/7/2003	18:29:59	30.9	7.2	0.338	0.2	35.7	2.7	0.69
8/7/2003	18:44:59	30.9	7.2	0.337	0.2	37.6	2.8	0.70
8/7/2003	18:59:59	31.0	7.2	0.335	0.2	36.9	2.7	0.70
8/7/2003	19:14:59	30.9	7.2	0.338	0.2	34.5	2.6	0.68
8/7/2003	19:29:59	30.8	7.2	0.339	0.2	34.0	2.5	0.70
8/7/2003	19:44:59	30.8	7.2	0.337	0.2	33.7	2.5	0.66
8/7/2003	19:59:59	30.8	7.2	0.34	0.2	31.6	2.4	0.65
8/7/2003	20:14:59	30.7	7.2	0.339	0.2	32.3	2.4	0.67
8/7/2003	20:29:59	30.7	7.2	0.338	0.2	31.7	2.4	0.65
8/7/2003	20:44:59	30.6	7.2	0.336	0.2	30.6	2.3	0.69

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/7/2003	20:59:59	30.6	7.2	0.333	0.2	29.8	2.2	0.67
8/7/2003	21:14:59	30.6	7.2	0.333	0.2	29.2	2.2	0.68
8/7/2003	21:29:59	30.6	7.2	0.331	0.2	28.2	2.1	0.66
8/7/2003	21:44:59	30.6	7.2	0.332	0.2	27.2	2.0	0.66
8/7/2003	21:59:59	30.5	7.2	0.332	0.2	26.5	2.0	0.67
8/7/2003	22:14:59	30.5	7.2	0.332	0.2	25.5	1.9	0.66
8/7/2003	22:29:59	30.5	7.2	0.332	0.2	24.1	1.8	0.68
8/7/2003	22:44:59	30.4	7.2	0.332	0.2	24.6	1.9	0.58
8/7/2003	22:59:59	30.5	7.2	0.332	0.2	22.5	1.7	0.67
8/7/2003	23:14:59	30.4	7.2	0.332	0.2	21.9	1.6	0.68
8/7/2003	23:29:59	30.4	7.2	0.331	0.2	21.3	1.6	0.67
8/7/2003	23:44:59	30.4	7.2	0.331	0.2	20.9	1.6	0.65
8/7/2003	23:59:59	30.4	7.2	0.331	0.2	20.1	1.5	0.67
8/8/2003	0:14:59	30.3	7.2	0.33	0.2	19.2	1.4	0.63
8/8/2003	0:29:59	30.3	7.2	0.33	0.2	18.5	1.4	0.64
8/8/2003	0:44:59	30.3	7.2	0.33	0.2	17.9	1.3	0.64
8/8/2003	0:59:59	30.3	7.2	0.331	0.2	18.1	1.4	0.64
8/8/2003	1:14:59	30.3	7.2	0.331	0.2	18.0	1.4	0.63
8/8/2003	1:29:59	30.3	7.2	0.331	0.2	16.9	1.3	0.63
8/8/2003	1:44:59	30.2	7.2	0.331	0.2	17.5	1.3	0.63
8/8/2003	1:59:59	30.2	7.2	0.331	0.2	17.3	1.3	0.63
8/8/2003	2:14:59	30.2	7.2	0.331	0.2	16.5	1.2	0.63
8/8/2003	2:29:59	30.2	7.2	0.331	0.2	16.4	1.2	0.63
8/8/2003	2:44:59	30.2	7.2	0.332	0.2	16.0	1.2	0.63
8/8/2003	2:59:59	30.1	7.2	0.332	0.2	16.6	1.3	0.63
8/8/2003	3:14:59	30.1	7.2	0.331	0.2	16.2	1.2	0.62
8/8/2003	3:29:59	30.1	7.2	0.332	0.2	15.7	1.2	0.66
8/8/2003	3:44:59	30.1	7.2	0.332	0.2	15.4	1.2	0.63
8/8/2003	3:59:59	30.1	7.2	0.332	0.2	15.4	1.2	0.62
8/8/2003	4:14:59	30.0	7.2	0.332	0.2	15.0	1.1	0.63
8/8/2003	4:29:59	30.0	7.2	0.332	0.2	14.5	1.1	0.65

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/8/2003	4:44:59	30.0	7.2	0.332	0.2	14.8	1.1	0.64
8/8/2003	4:59:59	29.9	7.2	0.332	0.2	14.8	1.1	0.63
8/8/2003	5:14:59	29.9	7.2	0.332	0.2	14.7	1.1	0.62
8/8/2003	5:29:59	29.9	7.2	0.332	0.2	14.5	1.1	0.64
8/8/2003	5:44:59	29.9	7.2	0.332	0.2	13.9	1.1	0.63
8/8/2003	5:59:59	29.8	7.2	0.332	0.2	13.3	1.0	0.64
8/8/2003	6:14:59	29.8	7.2	0.332	0.2	14.3	1.1	0.65
8/8/2003	6:29:59	29.8	7.2	0.332	0.2	13.2	1.0	0.65
8/8/2003	6:44:59	29.8	7.2	0.332	0.2	12.9	1.0	0.66
8/8/2003	6:59:59	29.8	7.2	0.332	0.2	12.8	1.0	0.64
8/8/2003	7:14:59	29.7	7.2	0.332	0.2	12.9	1.0	0.66
8/8/2003	7:29:59	29.7	7.2	0.332	0.2	12.9	1.0	0.66
8/8/2003	7:44:59	29.7	7.2	0.333	0.2	13.3	1.0	0.68
8/8/2003	7:59:59	29.7	7.2	0.333	0.2	12.5	1.0	0.68
8/8/2003	8:14:59	29.8	7.2	0.333	0.2	13.2	1.0	0.67
8/8/2003	8:29:59	29.8	7.2	0.333	0.2	13.7	1.0	0.66
8/8/2003	8:44:59	29.8	7.2	0.333	0.2	14.1	1.1	0.68
8/8/2003	8:59:59	29.8	7.2	0.334	0.2	13.6	1.0	0.70
8/8/2003	9:14:59	29.8	7.2	0.334	0.2	13.3	1.0	0.67
8/8/2003	9:29:59	29.9	7.2	0.334	0.2	13.7	1.0	0.66
8/8/2003	9:44:59	29.9	7.2	0.334	0.2	15.0	1.1	0.68
8/8/2003	9:59:59	29.9	7.2	0.333	0.2	15.5	1.2	0.69
8/8/2003	10:14:59	30.0	7.2	0.334	0.2	16.2	1.2	0.69
8/8/2003	10:29:59	30.0	7.2	0.334	0.2	18.3	1.4	0.69
8/8/2003	10:44:59	30.1	7.2	0.333	0.2	18.2	1.4	0.70
8/8/2003	10:59:59	30.1	7.2	0.333	0.2	19.7	1.5	0.70
8/8/2003	11:14:59	30.1	7.2	0.333	0.2	21.0	1.6	0.69
8/8/2003	11:29:59	30.2	7.2	0.333	0.2	21.7	1.6	0.72
8/8/2003	11:44:59	30.3	7.2	0.334	0.2	22.9	1.7	0.71
8/8/2003	11:59:59	30.3	7.2	0.333	0.2	25.0	1.9	0.70
8/8/2003	12:14:59	30.5	7.2	0.333	0.2	28.7	2.2	0.71

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/8/2003	12:29:59	30.5	7.2	0.333	0.2	27.9	2.1	0.70
8/8/2003	12:44:59	30.5	7.2	0.333	0.2	26.4	2.0	0.71
8/8/2003	12:59:59	30.5	7.2	0.332	0.2	27.7	2.1	0.72
8/8/2003	13:14:59	30.7	7.2	0.333	0.2	31.2	2.3	0.72
8/8/2003	13:29:59	30.7	7.2	0.333	0.2	31.2	2.3	0.72
8/8/2003	13:44:59	31.0	7.2	0.333	0.2	38.6	2.9	0.71
8/8/2003	13:59:59	31.0	7.2	0.332	0.2	39.7	2.9	0.72
8/8/2003	14:14:59	31.4	7.3	0.332	0.2	38.9	2.9	0.71
8/8/2003	14:29:59	31.0	7.2	0.332	0.2	36.1	2.7	0.70
8/8/2003	14:44:59	31.3	7.3	0.332	0.2	40.2	3.0	0.71
8/8/2003	14:59:59	31.3	7.3	0.332	0.2	40.3	3.0	0.70
8/8/2003	15:14:59	31.2	7.2	0.333	0.2	40.8	3.0	0.69
8/8/2003	15:29:59	31.3	7.2	0.333	0.2	40.0	3.0	0.70
8/8/2003	15:44:59	31.3	7.3	0.332	0.2	41.2	3.0	0.70
8/8/2003	15:59:59	31.2	7.2	0.333	0.2	38.9	2.9	0.68
8/8/2003	16:14:59	31.3	7.2	0.333	0.2	39.9	3.0	0.69
8/8/2003	16:29:59	31.7	7.3	0.333	0.2	48.6	3.6	0.69
8/8/2003	16:44:59	31.5	7.2	0.333	0.2	42.5	3.1	0.66
8/8/2003	16:59:59	31.7	7.3	0.333	0.2	49.8	3.7	0.69
8/8/2003	17:14:59	31.6	7.3	0.334	0.2	47.3	3.5	0.68
8/8/2003	17:29:59	31.6	7.3	0.334	0.2	42.3	3.1	0.70
8/8/2003	17:44:59	31.6	7.3	0.334	0.2	44.0	3.2	0.66
8/8/2003	17:59:59	31.8	7.3	0.333	0.2	51.7	3.8	0.67
8/8/2003	18:14:59	31.6	7.3	0.334	0.2	45.3	3.3	0.67
8/8/2003	18:29:59	31.7	7.3	0.334	0.2	47.9	3.5	0.68
8/8/2003	18:44:59	31.7	7.3	0.334	0.2	46.7	3.4	0.67
8/8/2003	18:59:59	31.7	7.3	0.335	0.2	46.7	3.4	0.67
8/8/2003	19:14:59	31.6	7.3	0.335	0.2	47.4	3.5	0.65
8/8/2003	19:29:59	31.6	7.3	0.335	0.2	47.7	3.5	0.68
8/8/2003	19:44:59	31.5	7.3	0.335	0.2	47.5	3.5	0.66
8/8/2003	19:59:59	31.5	7.3	0.335	0.2	44.6	3.3	0.71

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/8/2003	20:14:59	31.5	7.3	0.336	0.2	42.5	3.1	0.63
8/8/2003	20:29:59	31.4	7.3	0.337	0.2	42.3	3.1	0.65
8/8/2003	20:44:59	31.3	7.2	0.339	0.2	38.6	2.9	0.66
8/8/2003	20:59:59	31.3	7.2	0.341	0.2	37.3	2.8	0.65
8/8/2003	21:14:59	31.2	7.2	0.344	0.2	36.3	2.7	0.58
8/8/2003	21:29:59	31.2	7.2	0.346	0.2	33.3	2.5	0.65
8/8/2003	21:44:59	31.2	7.2	0.348	0.2	31.5	2.3	0.64
8/8/2003	21:59:59	31.2	7.2	0.351	0.2	31.0	2.3	0.64
8/8/2003	22:14:59	31.2	7.2	0.355	0.2	32.2	2.4	0.63
8/8/2003	22:29:59	31.2	7.2	0.357	0.2	32.1	2.4	0.66
8/8/2003	22:44:59	31.2	7.2	0.357	0.2	30.7	2.3	0.64
8/8/2003	22:59:59	31.1	7.2	0.357	0.2	30.4	2.3	0.62
8/8/2003	23:14:59	31.0	7.2	0.356	0.2	30.0	2.2	0.58
8/8/2003	23:29:59	31.0	7.2	0.355	0.2	27.5	2.0	0.61
8/8/2003	23:44:59	30.9	7.2	0.352	0.2	27.0	2.0	0.62
8/8/2003	23:59:59	30.9	7.2	0.352	0.2	25.0	1.9	0.62
8/9/2003	0:14:59	30.8	7.2	0.349	0.2	25.2	1.9	0.61
8/9/2003	0:29:59	30.7	7.2	0.348	0.2	24.3	1.8	0.62
8/9/2003	0:44:59	30.7	7.2	0.344	0.2	23.2	1.7	0.61
8/9/2003	0:59:59	30.6	7.2	0.345	0.2	22.7	1.7	0.61
8/9/2003	1:14:59	30.6	7.2	0.344	0.2	21.8	1.6	0.63
8/9/2003	1:29:59	30.5	7.2	0.345	0.2	20.6	1.5	0.58
8/9/2003	1:44:59	30.5	7.2	0.344	0.2	20.4	1.5	0.61
8/9/2003	1:59:59	30.4	7.2	0.341	0.2	20.9	1.6	0.59
8/9/2003	2:14:59	30.4	7.2	0.342	0.2	19.6	1.5	0.60
8/9/2003	2:29:59	30.4	7.2	0.34	0.2	19.4	1.5	0.59
8/9/2003	2:44:59	30.3	7.2	0.339	0.2	19.5	1.5	0.59
8/9/2003	2:59:59	30.3	7.2	0.343	0.2	18.4	1.4	0.59
8/9/2003	3:14:59	30.3	7.2	0.34	0.2	17.7	1.3	0.61
8/9/2003	3:29:59	30.2	7.2	0.341	0.2	18.2	1.4	0.60
8/9/2003	3:44:59	30.2	7.2	0.342	0.2	18.3	1.4	0.62

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/9/2003	3:59:59	30.2	7.2	0.342	0.2	17.7	1.3	0.62
8/9/2003	4:14:59	30.2	7.2	0.343	0.2	17.3	1.3	0.62
8/9/2003	4:29:59	30.2	7.2	0.342	0.2	18.4	1.4	0.61
8/9/2003	4:44:59	30.2	7.2	0.343	0.2	18.3	1.4	0.60
8/9/2003	4:59:59	30.2	7.2	0.343	0.2	17.9	1.4	0.62
8/9/2003	5:14:59	30.1	7.2	0.343	0.2	17.3	1.3	0.62
8/9/2003	5:29:59	30.1	7.2	0.344	0.2	16.9	1.3	0.62
8/9/2003	5:44:59	30.1	7.2	0.346	0.2	16.2	1.2	0.62
8/9/2003	5:59:59	30.1	7.2	0.347	0.2	16.3	1.2	0.62
8/9/2003	6:14:59	30.1	7.2	0.347	0.2	16.5	1.2	0.64
8/9/2003	6:29:59	30.1	7.2	0.348	0.2	16.1	1.2	0.63
8/9/2003	6:44:59	30.1	7.2	0.349	0.2	17.1	1.3	0.64
8/9/2003	6:59:59	30.1	7.2	0.349	0.2	16.1	1.2	0.65
8/9/2003	7:14:59	30.1	7.2	0.35	0.2	16.9	1.3	0.64
8/9/2003	7:29:59	30.1	7.2	0.35	0.2	16.9	1.3	0.66
8/9/2003	7:44:59	30.1	7.2	0.352	0.2	16.2	1.2	0.66
8/9/2003	7:59:59	30.1	7.2	0.352	0.2	15.9	1.2	0.66
8/9/2003	8:14:59	30.1	7.2	0.353	0.2	16.4	1.2	0.67
8/9/2003	8:29:59	30.2	7.2	0.355	0.2	17.6	1.3	0.67
8/9/2003	8:44:59	30.2	7.2	0.355	0.2	16.9	1.3	0.67
8/9/2003	8:59:59	30.2	7.2	0.356	0.2	18.8	1.4	0.68
8/9/2003	9:14:59	30.2	7.2	0.356	0.2	18.3	1.4	0.69
8/9/2003	9:29:59	30.2	7.2	0.357	0.2	19.7	1.5	0.69
8/9/2003	9:44:59	30.2	7.2	0.356	0.2	19.2	1.4	0.64
8/9/2003	9:59:59	30.3	7.2	0.355	0.2	20.3	1.5	0.69
8/9/2003	10:14:59	30.3	7.2	0.357	0.2	23.1	1.7	0.70
8/9/2003	10:29:59	30.3	7.2	0.357	0.2	21.3	1.6	0.70
8/9/2003	10:44:59	30.3	7.2	0.358	0.2	22.3	1.7	0.70
8/9/2003	10:59:59	30.4	7.2	0.357	0.2	24.5	1.8	0.71
8/9/2003	11:14:59	30.4	7.2	0.358	0.2	24.6	1.8	0.72
8/9/2003	11:29:59	30.5	7.2	0.358	0.2	25.5	1.9	0.72

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/9/2003	11:44:59	30.5	7.2	0.358	0.2	25.5	1.9	0.72
8/9/2003	11:59:59	30.6	7.2	0.357	0.2	29.4	2.2	0.72
8/9/2003	12:14:59	30.8	7.3	0.353	0.2	41.2	3.1	0.71
8/9/2003	12:29:59	30.9	7.3	0.354	0.2	29.5	2.2	0.71
8/9/2003	12:44:59	30.9	7.2	0.354	0.2	27.2	2.0	0.72
8/9/2003	12:59:59	31.2	7.3	0.351	0.2	29.6	2.2	0.73
8/9/2003	13:14:59	31.1	7.3	0.351	0.2	35.0	2.6	0.74
8/9/2003	13:29:59	31.1	7.2	0.35	0.2	24.6	1.8	0.74
8/9/2003	13:44:59	31.1	7.3	0.352	0.2	26.0	1.9	0.73
8/9/2003	13:59:59	31.1	7.3	0.351	0.2	26.2	1.9	0.73
8/9/2003	14:14:59	31.1	7.2	0.353	0.2	25.9	1.9	0.74
8/9/2003	14:29:59	31.2	7.2	0.352	0.2	24.1	1.8	0.74
8/9/2003	14:44:59	31.2	7.3	0.352	0.2	32.1	2.4	0.73
8/9/2003	14:59:59	31.3	7.3	0.351	0.2	32.2	2.4	0.74
8/9/2003	15:14:59	31.2	7.3	0.352	0.2	27.6	2.0	0.73
8/9/2003	15:29:59	31.4	7.3	0.351	0.2	28.8	2.1	0.74
8/9/2003	15:44:59	31.3	7.3	0.353	0.2	29.4	2.2	0.73
8/9/2003	15:59:59	31.3	7.2	0.353	0.2	26.7	2.0	0.73
8/9/2003	16:14:59	31.5	7.3	0.351	0.2	31.6	2.3	0.72
8/9/2003	16:29:59	31.2	7.3	0.353	0.2	33.5	2.5	0.72
8/9/2003	16:44:59	31.4	7.3	0.353	0.2	37.9	2.8	0.74
8/9/2003	16:59:59	31.4	7.3	0.352	0.2	42.1	3.1	0.71
8/9/2003	17:14:59	31.4	7.3	0.352	0.2	53.5	4.0	0.71
8/9/2003	17:29:59	31.4	7.3	0.352	0.2	53.6	4.0	0.73
8/9/2003	17:44:59	31.3	7.3	0.352	0.2	53.6	4.0	0.72
8/9/2003	17:59:59	31.5	7.3	0.352	0.2	60.8	4.5	0.71
8/9/2003	18:14:59	31.4	7.3	0.352	0.2	58.7	4.3	0.72
8/9/2003	18:29:59	31.5	7.4	0.352	0.2	68.7	5.1	0.70
8/9/2003	18:44:59	31.4	7.3	0.353	0.2	66.0	4.9	0.69
8/9/2003	18:59:59	31.4	7.3	0.351	0.2	60.2	4.4	0.69
8/9/2003	19:14:59	31.4	7.3	0.351	0.2	61.8	4.6	0.68

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/9/2003	19:29:59	31.3	7.3	0.351	0.2	58.2	4.3	0.68
8/9/2003	19:44:59	31.3	7.3	0.351	0.2	59.0	4.4	0.70
8/9/2003	19:59:59	31.3	7.3	0.35	0.2	58.2	4.3	0.70
8/9/2003	20:14:59	31.3	7.3	0.349	0.2	58.5	4.3	0.68
8/9/2003	20:29:59	31.2	7.3	0.349	0.2	54.5	4.0	0.69
8/9/2003	20:44:59	31.2	7.3	0.349	0.2	53.4	4.0	0.69
8/9/2003	20:59:59	31.2	7.3	0.35	0.2	52.6	3.9	0.69
8/9/2003	21:14:59	31.2	7.3	0.35	0.2	51.8	3.8	0.68
8/9/2003	21:29:59	31.1	7.3	0.35	0.2	50.6	3.8	0.67
8/9/2003	21:44:59	31.1	7.3	0.349	0.2	50.2	3.7	0.67
8/9/2003	21:59:59	31.1	7.3	0.349	0.2	49.6	3.7	0.66
8/9/2003	22:14:59	31.0	7.3	0.348	0.2	48.4	3.6	0.67
8/9/2003	22:29:59	31.0	7.3	0.347	0.2	47.8	3.6	0.67
8/9/2003	22:44:59	31.0	7.3	0.347	0.2	45.5	3.4	0.66
8/9/2003	22:59:59	30.9	7.3	0.346	0.2	44.6	3.3	0.66
8/9/2003	23:14:59	30.9	7.3	0.345	0.2	43.4	3.2	0.66
8/9/2003	23:29:59	30.9	7.3	0.345	0.2	42.6	3.2	0.65
8/9/2003	23:44:59	30.8	7.3	0.345	0.2	41.6	3.1	0.65
8/9/2003	23:59:59	30.8	7.3	0.344	0.2	41.3	3.1	0.65
8/10/2003	0:14:59	30.8	7.2	0.343	0.2	39.5	2.9	0.65
8/10/2003	0:29:59	30.7	7.2	0.343	0.2	38.8	2.9	0.66
8/10/2003	0:44:59	30.7	7.2	0.343	0.2	37.5	2.8	0.63
8/10/2003	0:59:59	30.7	7.2	0.343	0.2	37.4	2.8	0.64
8/10/2003	1:14:59	30.6	7.2	0.342	0.2	36.4	2.7	0.64
8/10/2003	1:29:59	30.6	7.2	0.342	0.2	35.8	2.7	0.64
8/10/2003	1:44:59	30.5	7.2	0.341	0.2	33.8	2.5	0.63
8/10/2003	1:59:59	30.5	7.2	0.341	0.2	34.2	2.6	0.63
8/10/2003	2:14:59	30.5	7.2	0.341	0.2	27.5	2.1	0.64
8/10/2003	2:29:59	30.4	7.2	0.341	0.2	31.5	2.4	0.63
8/10/2003	2:44:59	30.4	7.2	0.34	0.2	29.7	2.2	0.62
8/10/2003	2:59:59	30.4	7.2	0.34	0.2	29.7	2.2	0.62

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/10/2003	3:14:59	30.4	7.2	0.34	0.2	29.5	2.2	0.62
8/10/2003	3:29:59	30.4	7.2	0.34	0.2	28.5	2.1	0.64
8/10/2003	3:44:59	30.3	7.2	0.34	0.2	28.1	2.1	0.62
8/10/2003	3:59:59	30.3	7.2	0.34	0.2	27.9	2.1	0.61
8/10/2003	4:14:59	30.3	7.2	0.34	0.2	27.9	2.1	0.64
8/10/2003	4:29:59	30.3	7.2	0.34	0.2	28.1	2.1	0.62
8/10/2003	4:44:59	30.2	7.2	0.339	0.2	28.0	2.1	0.62
8/10/2003	4:59:59	30.2	7.2	0.34	0.2	27.6	2.1	0.63
8/10/2003	5:14:59	30.2	7.2	0.341	0.2	27.8	2.1	0.63
8/10/2003	5:29:59	30.2	7.2	0.341	0.2	27.2	2.1	0.63
8/10/2003	5:44:59	30.2	7.2	0.341	0.2	26.3	2.0	0.64
8/10/2003	5:59:59	30.1	7.2	0.341	0.2	26.8	2.0	0.60
8/10/2003	6:14:59	30.1	7.2	0.341	0.2	26.3	2.0	0.63
8/10/2003	6:29:59	30.2	7.2	0.343	0.2	26.2	2.0	0.65
8/10/2003	6:44:59	30.1	7.2	0.343	0.2	26.5	2.0	0.65
8/10/2003	6:59:59	30.1	7.2	0.344	0.2	26.2	2.0	0.66
8/10/2003	7:14:59	30.1	7.2	0.345	0.2	26.5	2.0	0.65
8/10/2003	7:29:59	30.1	7.2	0.346	0.2	25.4	1.9	0.65
8/10/2003	7:44:59	30.1	7.2	0.347	0.2	26.1	2.0	0.66
8/10/2003	7:59:59	30.2	7.2	0.348	0.2	26.7	2.0	0.65
8/10/2003	8:14:59	30.2	7.2	0.348	0.2	25.7	1.9	0.67
8/10/2003	8:29:59	30.2	7.2	0.347	0.2	27.3	2.1	0.68
8/10/2003	8:44:59	30.2	7.2	0.347	0.2	28.4	2.1	0.66
8/10/2003	8:59:59	30.2	7.2	0.348	0.2	28.6	2.2	0.69
8/10/2003	9:14:59	30.3	7.2	0.35	0.2	30.3	2.3	0.68
8/10/2003	9:29:59	30.3	7.2	0.35	0.2	29.5	2.2	0.68
8/10/2003	9:44:59	30.3	7.2	0.351	0.2	30.3	2.3	0.68
8/10/2003	9:59:59	30.3	7.2	0.352	0.2	30.1	2.3	0.71
8/10/2003	10:14:59	30.4	7.2	0.351	0.2	32.1	2.4	0.68
8/10/2003	10:29:59	30.4	7.2	0.352	0.2	36.4	2.7	0.68
8/10/2003	10:44:59	30.4	7.2	0.353	0.2	34.1	2.6	0.72

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/10/2003	10:59:59	30.5	7.2	0.352	0.2	37.4	2.8	0.69
8/10/2003	11:14:59	30.6	7.3	0.352	0.2	42.3	3.2	0.70
8/10/2003	11:29:59	30.6	7.3	0.353	0.2	41.4	3.1	0.71
8/10/2003	11:44:59	30.8	7.3	0.352	0.2	46.2	3.4	0.68
8/10/2003	11:59:59	30.7	7.3	0.353	0.2	46.3	3.5	0.72
8/10/2003	12:14:59	30.8	7.3	0.353	0.2	53.4	4.0	0.72
8/10/2003	12:29:59	31.0	7.4	0.353	0.2	60.6	4.5	0.72
8/10/2003	12:44:59	31.0	7.3	0.353	0.2	57.3	4.3	0.73
8/10/2003	12:59:59	31.3	7.4	0.351	0.2	75.1	5.5	0.72
8/10/2003	13:14:59	31.2	7.4	0.351	0.2	63.5	4.7	0.75
8/10/2003	13:29:59	31.2	7.4	0.351	0.2	63.9	4.7	0.73
8/10/2003	13:44:59	31.1	7.3	0.352	0.2	59.2	4.4	0.74
8/10/2003	13:59:59	31.2	7.4	0.351	0.2	64.6	4.8	0.74
8/10/2003	14:14:59	31.5	7.4	0.35	0.2	71.6	5.3	0.74
8/10/2003	14:29:59	31.5	7.4	0.35	0.2	71.2	5.2	0.75
8/10/2003	14:44:59	31.5	7.4	0.35	0.2	79.8	5.9	0.73
8/10/2003	14:59:59	31.5	7.4	0.35	0.2	73.6	5.4	0.73
8/10/2003	15:14:59	31.6	7.4	0.349	0.2	76.3	5.6	0.74
8/10/2003	15:29:59	31.4	7.4	0.349	0.2	61.3	4.5	0.74
8/10/2003	15:44:59	31.2	7.3	0.35	0.2	52.8	3.9	0.75
8/10/2003	15:59:59	31.5	7.4	0.349	0.2	63.9	4.7	0.74
8/10/2003	16:14:59	31.5	7.4	0.349	0.2	61.1	4.5	0.74
8/10/2003	16:29:59	31.7	7.4	0.348	0.2	69.1	5.1	0.74
8/10/2003	16:44:59	31.9	7.4	0.347	0.2	75.0	5.5	0.73
8/10/2003	16:59:59	31.6	7.4	0.348	0.2	63.4	4.7	0.74
8/10/2003	17:14:59	31.8	7.4	0.347	0.2	69.3	5.1	0.74
8/10/2003	17:29:59	31.8	7.4	0.346	0.2	68.4	5.0	0.74
8/10/2003	17:44:59	31.9	7.4	0.347	0.2	67.2	4.9	0.74
8/10/2003	17:59:59	32.1	7.5	0.344	0.2	79.0	5.8	0.73
8/10/2003	18:14:59	32.0	7.4	0.345	0.2	72.1	5.3	0.73
8/10/2003	18:29:59	32.2	7.5	0.342	0.2	85.8	6.2	0.71

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/10/2003	18:44:59	32.0	7.4	0.344	0.2	72.8	5.3	0.72
8/10/2003	18:59:59	32.1	7.4	0.343	0.2	75.8	5.5	0.72
8/10/2003	19:14:59	32.0	7.4	0.344	0.2	70.0	5.1	0.72
8/10/2003	19:29:59	32.0	7.4	0.344	0.2	69.7	5.1	0.72
8/10/2003	19:44:59	32.1	7.4	0.344	0.2	72.7	5.3	0.71
8/10/2003	19:59:59	32.0	7.4	0.343	0.2	67.6	4.9	0.71
8/10/2003	20:14:59	32.1	7.5	0.342	0.2	81.1	5.9	0.71
8/10/2003	20:29:59	32.2	7.6	0.34	0.2	88.2	6.4	0.71
8/10/2003	20:44:59	32.2	7.6	0.34	0.2	88.9	6.5	0.71
8/10/2003	20:59:59	32.1	7.6	0.34	0.2	89.6	6.5	0.71
8/10/2003	21:14:59	32.1	7.6	0.34	0.2	88.2	6.4	0.69
8/10/2003	21:29:59	32.0	7.5	0.341	0.2	76.0	5.6	0.71
8/10/2003	21:44:59	31.9	7.5	0.341	0.2	83.9	6.1	0.70
8/10/2003	21:59:59	31.9	7.6	0.341	0.2	91.0	6.7	0.70
8/10/2003	22:14:59	31.8	7.6	0.341	0.2	87.4	6.4	0.68
8/10/2003	22:29:59	31.7	7.5	0.342	0.2	87.7	6.4	0.66
8/10/2003	22:44:59	31.7	7.5	0.342	0.2	81.8	6.0	0.70
8/10/2003	22:59:59	31.6	7.5	0.342	0.2	81.6	6.0	0.68
8/10/2003	23:14:59	31.6	7.5	0.342	0.2	78.8	5.8	0.68
8/10/2003	23:29:59	31.6	7.5	0.342	0.2	75.7	5.6	0.66
8/10/2003	23:44:59	31.5	7.5	0.343	0.2	77.2	5.7	0.67
8/10/2003	23:59:59	31.5	7.5	0.343	0.2	79.8	5.9	0.63
8/11/2003	0:14:59	31.5	7.5	0.343	0.2	78.9	5.8	0.67
8/11/2003	0:29:59	31.4	7.5	0.343	0.2	77.2	5.7	0.66
8/11/2003	0:44:59	31.4	7.5	0.343	0.2	76.3	5.6	0.66
8/11/2003	0:59:59	31.4	7.5	0.343	0.2	75.7	5.6	0.67
8/11/2003	1:14:59	31.3	7.5	0.343	0.2	75.3	5.6	0.64
8/11/2003	1:29:59	31.3	7.5	0.343	0.2	74.3	5.5	0.66
8/11/2003	1:44:59	31.3	7.5	0.343	0.2	73.6	5.4	0.66
8/11/2003	1:59:59	31.3	7.5	0.342	0.2	72.8	5.4	0.65
8/11/2003	2:14:59	31.2	7.5	0.342	0.2	71.9	5.3	0.64

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

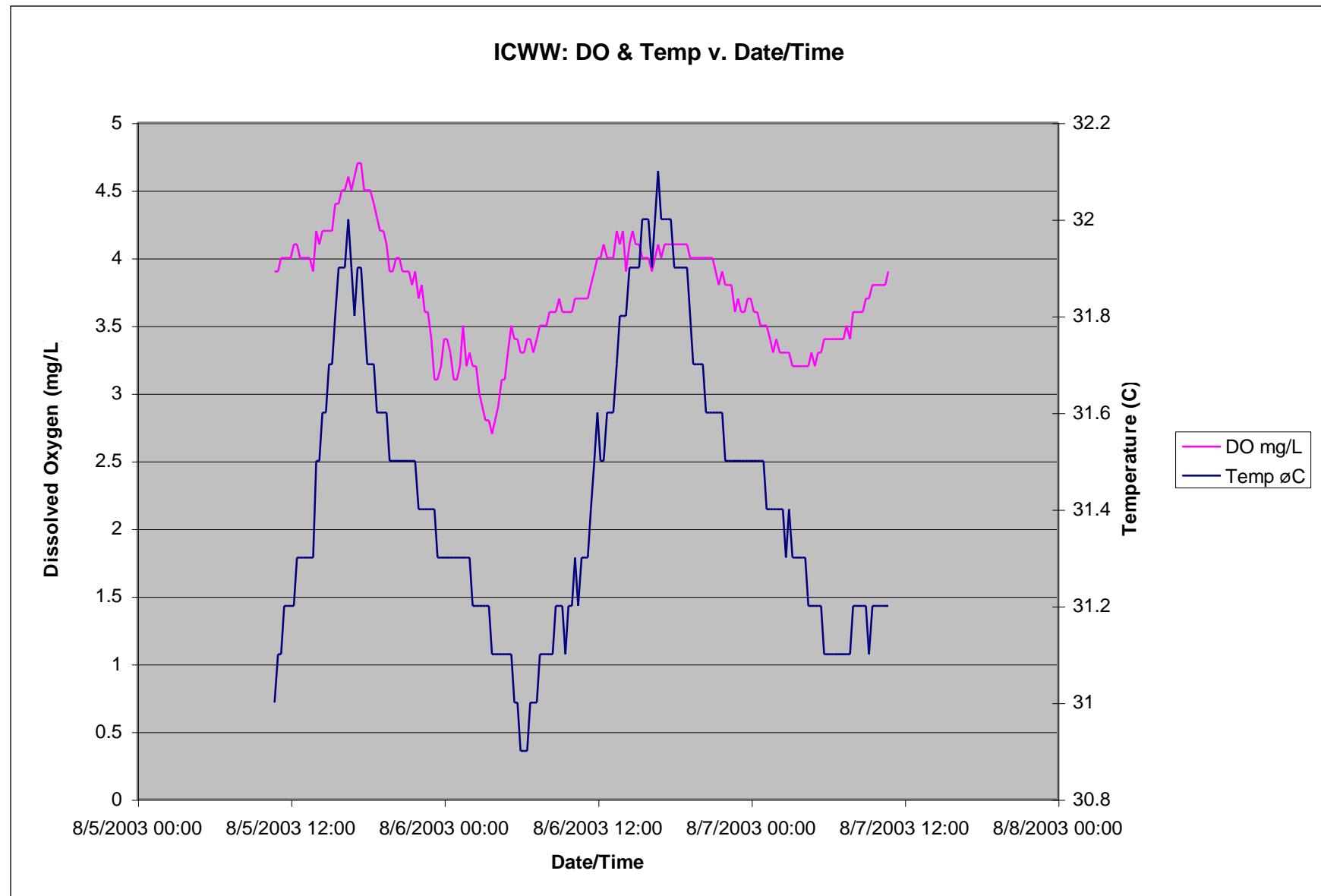
8/11/2003	2:29:59	31.2	7.4	0.343	0.2	69.9	5.2	0.64
8/11/2003	2:44:59	31.2	7.4	0.342	0.2	69.3	5.1	0.63
8/11/2003	2:59:59	31.1	7.4	0.342	0.2	69.1	5.1	0.62
8/11/2003	3:14:59	31.1	7.4	0.342	0.2	67.3	5.0	0.68
8/11/2003	3:29:59	31.1	7.4	0.343	0.2	67.1	5.0	0.64
8/11/2003	3:44:59	31.0	7.4	0.343	0.2	67.2	5.0	0.66
8/11/2003	3:59:59	31.0	7.4	0.343	0.2	64.0	4.8	0.65
8/11/2003	4:14:59	31.0	7.4	0.343	0.2	62.8	4.7	0.63
8/11/2003	4:29:59	31.0	7.4	0.343	0.2	62.8	4.7	0.66
8/11/2003	4:44:59	31.0	7.4	0.343	0.2	61.4	4.6	0.66
8/11/2003	4:59:59	30.9	7.4	0.343	0.2	60.4	4.5	0.65
8/11/2003	5:14:59	30.9	7.4	0.343	0.2	60.6	4.5	0.64
8/11/2003	5:29:59	30.9	7.4	0.343	0.2	59.2	4.4	0.64
8/11/2003	5:44:59	30.8	7.4	0.343	0.2	59.9	4.5	0.64
8/11/2003	5:59:59	30.8	7.4	0.343	0.2	59.0	4.4	0.65
8/11/2003	6:14:59	30.8	7.4	0.343	0.2	59.3	4.4	0.66
8/11/2003	6:29:59	30.8	7.4	0.344	0.2	58.7	4.4	0.63
8/11/2003	6:44:59	30.7	7.4	0.344	0.2	57.6	4.3	0.64
8/11/2003	6:59:59	30.7	7.4	0.345	0.2	56.7	4.2	0.69
8/11/2003	7:14:59	30.7	7.4	0.345	0.2	55.7	4.2	0.68
8/11/2003	7:29:59	30.7	7.4	0.346	0.2	55.0	4.1	0.69
8/11/2003	7:44:59	30.7	7.4	0.345	0.2	55.3	4.1	0.67
8/11/2003	7:59:59	30.7	7.3	0.346	0.2	54.8	4.1	0.67
8/11/2003	8:14:59	30.7	7.3	0.346	0.2	54.7	4.1	0.68
8/11/2003	8:29:59	30.7	7.3	0.346	0.2	53.9	4.0	0.69
8/11/2003	8:44:59	30.7	7.3	0.346	0.2	52.7	3.9	0.69
8/11/2003	8:59:59	30.7	7.3	0.346	0.2	52.9	3.9	0.70
8/11/2003	9:14:59	30.7	7.3	0.346	0.2	51.1	3.8	0.68
8/11/2003	9:29:59	30.8	7.3	0.346	0.2	52.6	3.9	0.70
8/11/2003	9:44:59	30.8	7.3	0.346	0.2	52.2	3.9	0.71
8/11/2003	9:59:59	30.8	7.3	0.346	0.2	49.8	3.7	0.71

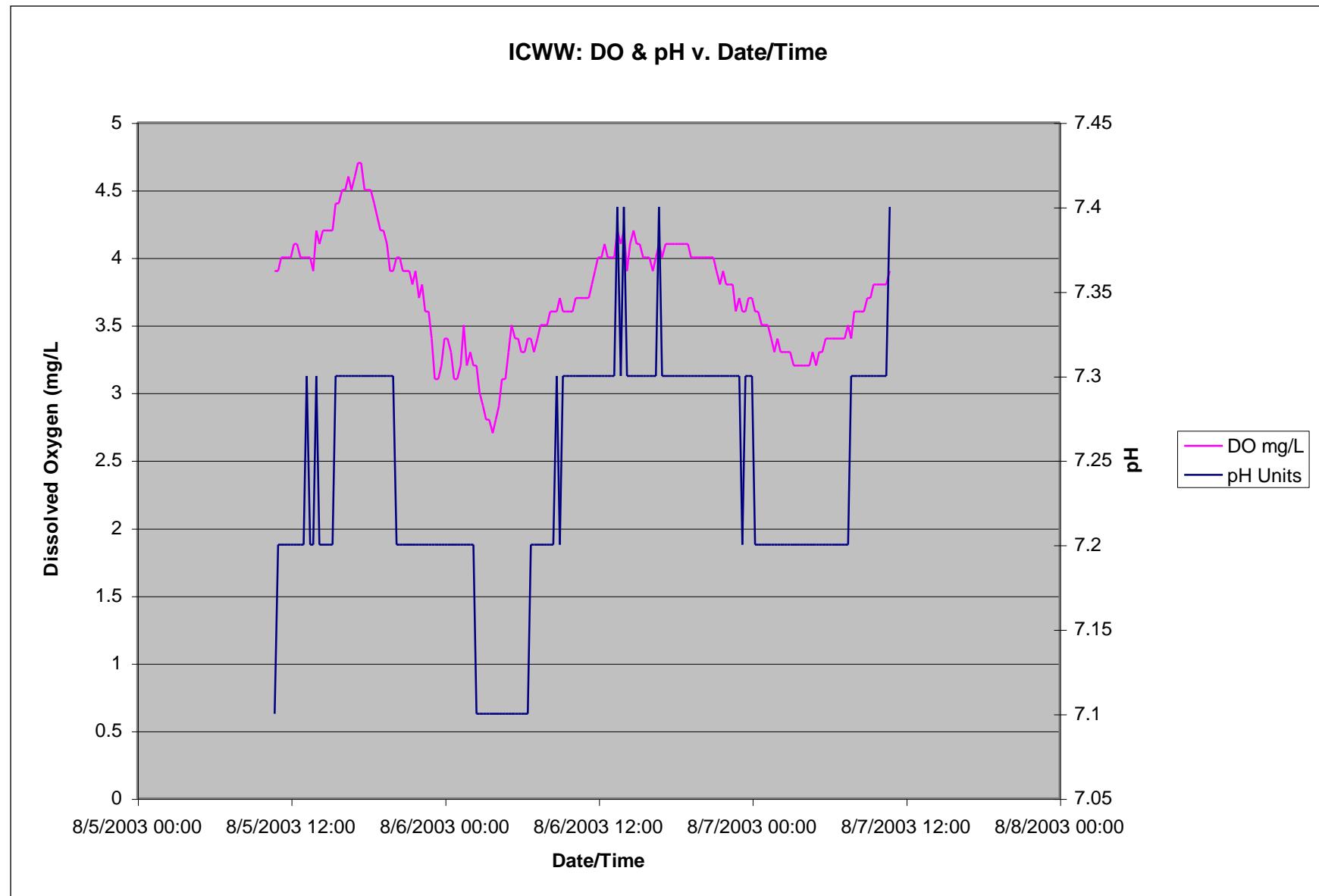
Bayou Terrebonne Watershed TMDL

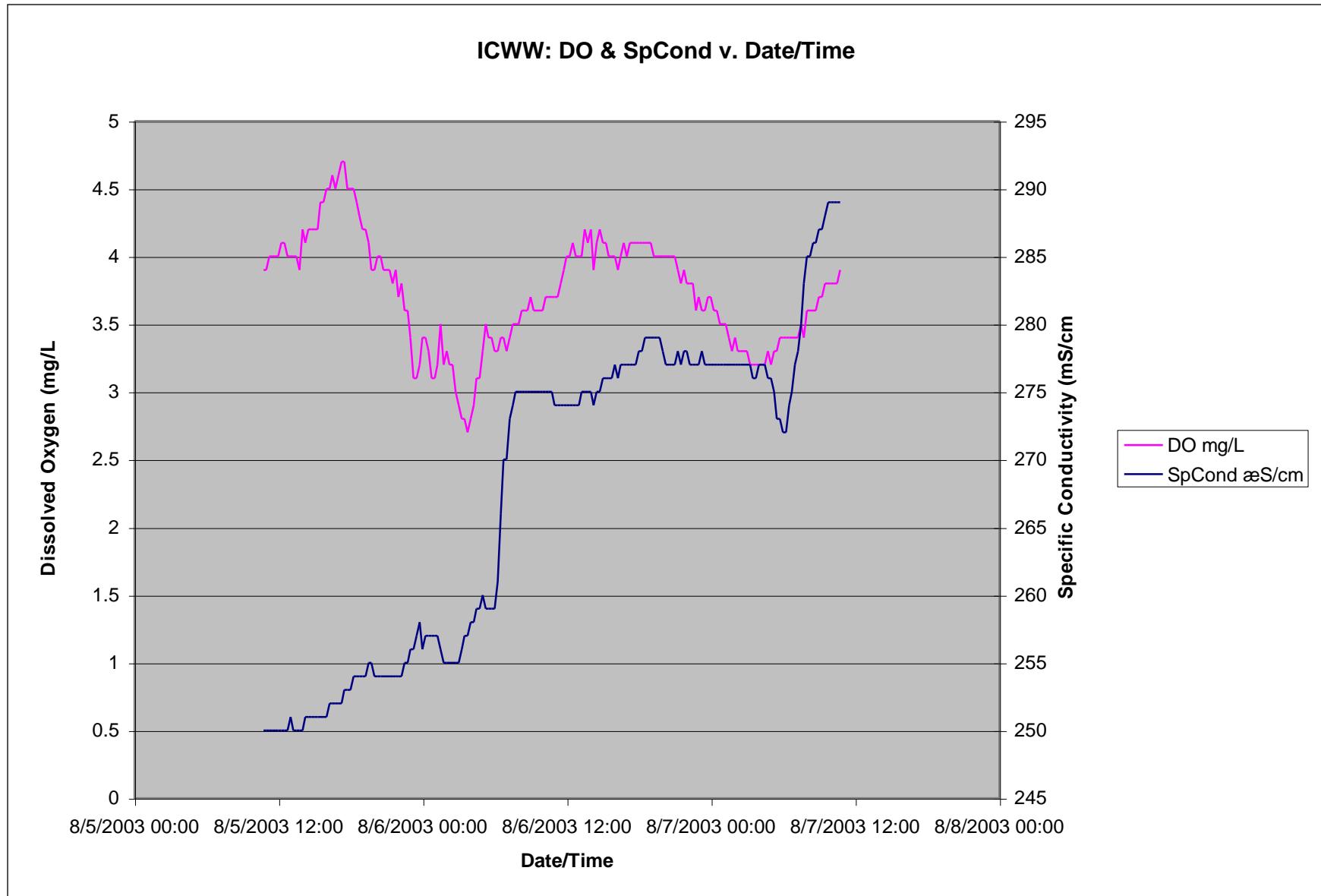
Subsegment 120301

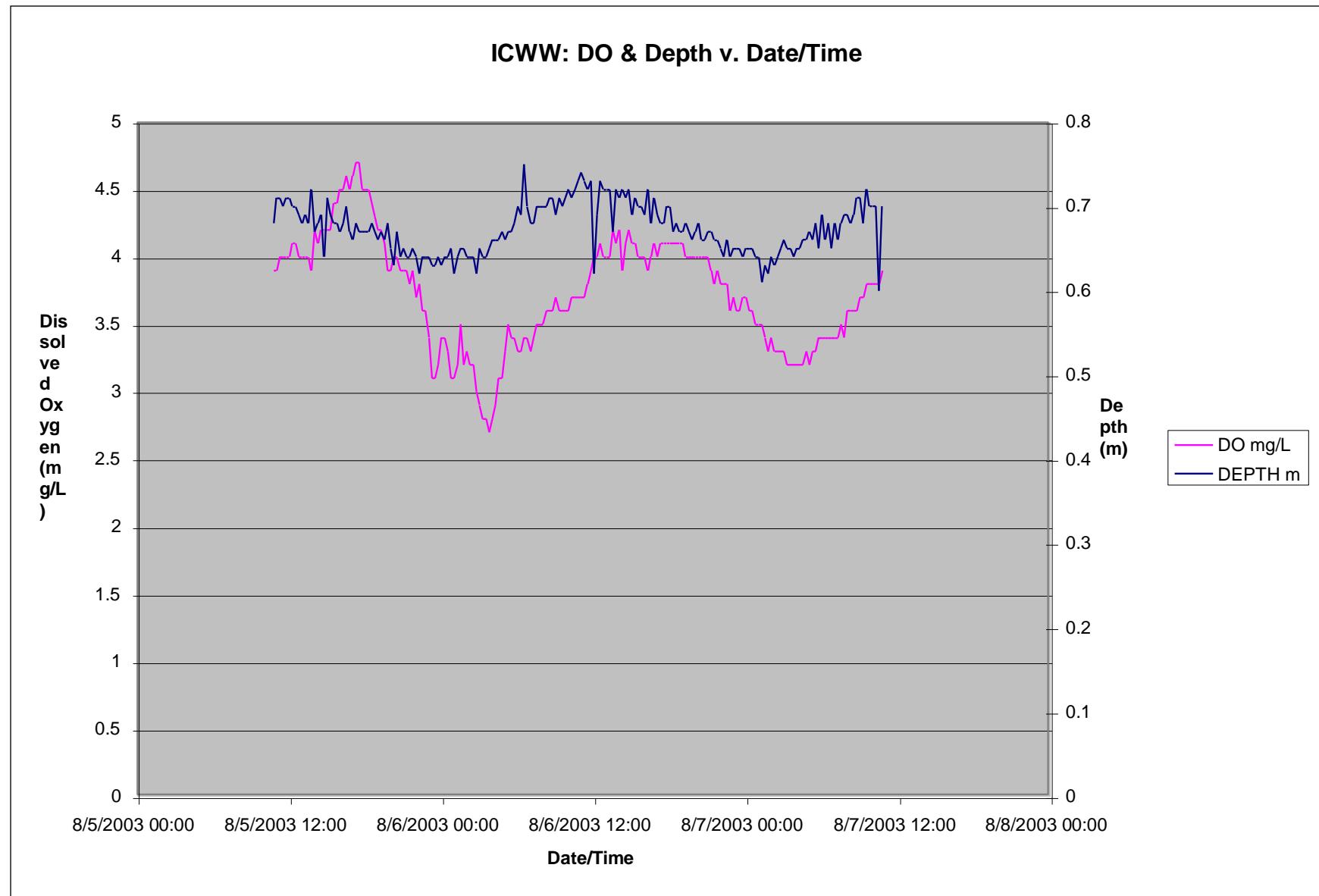
Originated: March 19, 2008

8/11/2003	10:14:59	30.8	7.3	0.346	0.2	48.7	3.6	0.71
8/11/2003	10:29:59	30.7	7.3	0.345	0.2	47.3	3.5	0.72
8/11/2003	10:44:59	30.7	7.3	0.345	0.2	47.4	3.5	0.71
8/11/2003	10:59:59	30.8	7.3	0.345	0.2	48.9	3.7	0.71
8/11/2003	11:14:59	30.8	7.3	0.345	0.2	50.1	3.7	0.72
8/11/2003	11:29:59	30.8	7.3	0.345	0.2	47.6	3.6	0.72
8/11/2003	11:44:59	30.8	7.3	0.345	0.2	49.8	3.7	0.73
8/11/2003	11:59:59	31.0	7.4	0.345	0.2	56.4	4.2	0.75
8/11/2003	12:14:59	31.2	7.4	0.346	0.2	67.8	5.0	0.72
8/11/2003	12:29:59	31.1	7.4	0.344	0.2	66.8	5.0	0.72









MiniSonde 4a 39001

Log File Name : ICWW-1 080403

Setup Date (MMDDYY) : 080403

Setup Time (HHMMSS) : 103435

Starting Date (MMDDYY) : 080403

Starting Time (HHMMSS) : 235959

Stopping Date (MMDDYY) : 080703

Stopping Time (HHMMSS) : 235959

Interval (HHMMSS) : 001500

Sensor warmup (HHMMSS) : 000200

Circltr warmup (HHMMSS) : 000200

Date MMDDYY	Time HHMMSS	Temp øC	SpCond æS/cm	Sal ppt	pH Units	DO mg/l	DO% Sat	Depth meters
8/5/2003	10:44	31.0	250	0.1	7.1	3.9	52.6	0.68
8/5/2003	10:59	31.1	250	0.1	7.2	3.9	52.8	0.71
8/5/2003	11:14	31.1	250	0.1	7.2	4.0	53.3	0.71
8/5/2003	11:29	31.2	250	0.1	7.2	4.0	54.6	0.70
8/5/2003	11:44	31.2	250	0.1	7.2	4.0	53.7	0.71
8/5/2003	11:59	31.2	250	0.1	7.2	4.0	54.0	0.71
8/5/2003	12:14	31.2	250	0.1	7.2	4.1	55.0	0.70
8/5/2003	12:29	31.3	250	0.1	7.2	4.1	54.9	0.70
8/5/2003	12:44	31.3	250	0.1	7.2	4.0	54.2	0.69
8/5/2003	12:59	31.3	251	0.1	7.2	4.0	54.6	0.68
8/5/2003	13:14	31.3	250	0.1	7.3	4.0	54.7	0.69
8/5/2003	13:29	31.3	250	0.1	7.2	4.0	53.6	0.68
8/5/2003	13:44	31.3	250	0.1	7.2	3.9	52.3	0.72

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	13:59	31.5	250	0.1	7.3	4.2	57.6	0.67
8/5/2003	14:14	31.5	251	0.1	7.2	4.1	55.8	0.68
8/5/2003	14:29	31.6	251	0.1	7.2	4.2	57.0	0.69
8/5/2003	14:44	31.6	251	0.1	7.2	4.2	56.7	0.64
8/5/2003	14:59	31.7	251	0.1	7.2	4.2	57.7	0.71
8/5/2003	15:14	31.7	251	0.1	7.2	4.2	57.0	0.69
8/5/2003	15:29	31.8	251	0.1	7.3	4.4	59.5	0.68
8/5/2003	15:44	31.9	251	0.1	7.3	4.4	59.6	0.68
8/5/2003	15:59	31.9	251	0.1	7.3	4.5	62.1	0.67
8/5/2003	16:14	31.9	252	0.1	7.3	4.5	61.5	0.68
8/5/2003	16:29	32.0	252	0.1	7.3	4.6	62.7	0.70
8/5/2003	16:44	31.9	252	0.1	7.3	4.5	60.8	0.67
8/5/2003	16:59	31.8	252	0.1	7.3	4.6	62.3	0.66
8/5/2003	17:14	31.9	252	0.1	7.3	4.7	64.5	0.68
8/5/2003	17:29	31.9	253	0.1	7.3	4.7	63.7	0.67
8/5/2003	17:44	31.8	253	0.1	7.3	4.5	62.0	0.67
8/5/2003	17:59	31.7	253	0.1	7.3	4.5	61.9	0.67
8/5/2003	18:14	31.7	254	0.1	7.3	4.5	60.8	0.67
8/5/2003	18:29	31.7	254	0.1	7.3	4.4	59.8	0.68
8/5/2003	18:44	31.6	254	0.1	7.3	4.3	58.0	0.67
8/5/2003	18:59	31.6	254	0.1	7.3	4.2	57.0	0.66
8/5/2003	19:14	31.6	254	0.1	7.3	4.2	56.4	0.67
8/5/2003	19:29	31.6	255	0.1	7.3	4.1	56.1	0.66
8/5/2003	19:44	31.5	255	0.1	7.3	3.9	53.5	0.68
8/5/2003	19:59	31.5	254	0.1	7.3	3.9	53.0	0.65
8/5/2003	20:14	31.5	254	0.1	7.2	4.0	54.6	0.63
8/5/2003	20:29	31.5	254	0.1	7.2	4.0	54.4	0.67
8/5/2003	20:44	31.5	254	0.1	7.2	3.9	53.3	0.64
8/5/2003	20:59	31.5	254	0.1	7.2	3.9	52.9	0.65
8/5/2003	21:14	31.5	254	0.1	7.2	3.9	52.7	0.64
8/5/2003	21:29	31.5	254	0.1	7.2	3.8	52.2	0.64

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/5/2003	21:44	31.5	254	0.1	7.2	3.9	52.8	0.65
8/5/2003	21:59	31.4	254	0.1	7.2	3.7	50.5	0.64
8/5/2003	22:14	31.4	254	0.1	7.2	3.8	51.9	0.62
8/5/2003	22:29	31.4	255	0.1	7.2	3.6	48.4	0.64
8/5/2003	22:44	31.4	255	0.1	7.2	3.6	48.9	0.64
8/5/2003	22:59	31.4	256	0.1	7.2	3.4	45.4	0.64
8/5/2003	23:14	31.4	256	0.1	7.2	3.1	42.6	0.63
8/5/2003	23:29	31.3	257	0.1	7.2	3.1	41.5	0.63
8/5/2003	23:44	31.3	258	0.1	7.2	3.2	43.2	0.64
8/5/2003	23:59	31.3	256	0.1	7.2	3.4	45.5	0.63
8/6/2003	0:14	31.3	257	0.1	7.2	3.4	46.5	0.64
8/6/2003	0:29	31.3	257	0.1	7.2	3.3	44.0	0.64
8/6/2003	0:44	31.3	257	0.1	7.2	3.1	42.1	0.65
8/6/2003	0:59	31.3	257	0.1	7.2	3.1	41.4	0.62
8/6/2003	1:14	31.3	257	0.1	7.2	3.2	42.6	0.64
8/6/2003	1:29	31.3	256	0.1	7.2	3.5	46.7	0.65
8/6/2003	1:44	31.3	255	0.1	7.2	3.2	43.4	0.65
8/6/2003	1:59	31.3	255	0.1	7.2	3.3	44.0	0.64
8/6/2003	2:14	31.2	255	0.1	7.2	3.2	43.7	0.64
8/6/2003	2:29	31.2	255	0.1	7.1	3.2	42.8	0.64
8/6/2003	2:44	31.2	255	0.1	7.1	3.0	40.4	0.62
8/6/2003	2:59	31.2	255	0.1	7.1	2.9	39.0	0.65
8/6/2003	3:14	31.2	256	0.1	7.1	2.8	37.6	0.64
8/6/2003	3:29	31.2	257	0.1	7.1	2.8	37.5	0.64
8/6/2003	3:44	31.1	257	0.1	7.1	2.7	36.6	0.65
8/6/2003	3:59	31.1	258	0.1	7.1	2.8	37.2	0.66
8/6/2003	4:14	31.1	258	0.1	7.1	2.9	39.6	0.66
8/6/2003	4:29	31.1	259	0.1	7.1	3.1	42.1	0.66
8/6/2003	4:44	31.1	259	0.1	7.1	3.1	41.8	0.67
8/6/2003	4:59	31.1	260	0.1	7.1	3.3	44.3	0.66
8/6/2003	5:14	31.1	259	0.1	7.1	3.5	47.3	0.67

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	5:29	31.0	259	0.1	7.1	3.4	45.5	0.67
8/6/2003	5:44	31.0	259	0.1	7.1	3.4	45.1	0.68
8/6/2003	5:59	30.9	259	0.1	7.1	3.3	44.6	0.70
8/6/2003	6:14	30.9	261	0.1	7.1	3.3	44.7	0.69
8/6/2003	6:29	30.9	266	0.1	7.1	3.4	45.5	0.75
8/6/2003	6:44	31.0	270	0.1	7.2	3.4	45.2	0.70
8/6/2003	6:59	31.0	270	0.1	7.2	3.3	44.6	0.68
8/6/2003	7:14	31.0	273	0.1	7.2	3.4	46.2	0.68
8/6/2003	7:29	31.1	274	0.1	7.2	3.5	47.1	0.70
8/6/2003	7:44	31.1	275	0.1	7.2	3.5	46.8	0.70
8/6/2003	7:59	31.1	275	0.1	7.2	3.5	46.6	0.70
8/6/2003	8:14	31.1	275	0.1	7.2	3.6	48.6	0.70
8/6/2003	8:29	31.1	275	0.1	7.2	3.6	48.0	0.71
8/6/2003	8:44	31.2	275	0.1	7.3	3.6	48.9	0.71
8/6/2003	8:59	31.2	275	0.1	7.2	3.7	49.6	0.69
8/6/2003	9:14	31.2	275	0.1	7.3	3.6	49.2	0.71
8/6/2003	9:29	31.1	275	0.1	7.3	3.6	49.0	0.70
8/6/2003	9:44	31.2	275	0.1	7.3	3.6	48.8	0.71
8/6/2003	9:59	31.2	275	0.1	7.3	3.6	48.6	0.72
8/6/2003	10:14	31.3	275	0.1	7.3	3.7	50.1	0.71
8/6/2003	10:29	31.2	275	0.1	7.3	3.7	50.3	0.72
8/6/2003	10:44	31.3	275	0.1	7.3	3.7	50.2	0.73
8/6/2003	10:59	31.3	274	0.1	7.3	3.7	50.5	0.74
8/6/2003	11:14	31.3	274	0.1	7.3	3.7	50.7	0.73
8/6/2003	11:29	31.4	274	0.1	7.3	3.8	51.4	0.72
8/6/2003	11:44	31.5	274	0.1	7.3	3.9	52.7	0.73
8/6/2003	11:59	31.6	274	0.1	7.3	4.0	54.2	0.62
8/6/2003	12:14	31.5	274	0.1	7.3	4.0	54.2	0.69
8/6/2003	12:29	31.5	274	0.1	7.3	4.1	55.1	0.73
8/6/2003	12:44	31.6	274	0.1	7.3	4.0	54.5	0.72
8/6/2003	12:59	31.6	274	0.1	7.3	4.0	55.0	0.72

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	13:14	31.6	275	0.1	7.3	4.0	54.9	0.72
8/6/2003	13:29	31.7	275	0.1	7.4	4.2	56.7	0.67
8/6/2003	13:44	31.8	275	0.1	7.3	4.1	55.7	0.72
8/6/2003	13:59	31.8	275	0.1	7.4	4.2	57.8	0.71
8/6/2003	14:14	31.8	274	0.1	7.3	3.9	53.6	0.72
8/6/2003	14:29	31.9	275	0.1	7.3	4.1	56.4	0.71
8/6/2003	14:44	31.9	275	0.1	7.3	4.2	56.7	0.72
8/6/2003	14:59	31.9	276	0.1	7.3	4.1	56.3	0.69
8/6/2003	15:14	31.9	276	0.1	7.3	4.1	55.4	0.71
8/6/2003	15:29	32.0	276	0.1	7.3	4.0	55.1	0.70
8/6/2003	15:44	32.0	276	0.1	7.3	4.0	55.0	0.70
8/6/2003	15:59	32.0	277	0.1	7.3	4.0	54.3	0.69
8/6/2003	16:14	31.9	276	0.1	7.3	3.9	52.7	0.72
8/6/2003	16:29	32.0	277	0.1	7.3	4.0	54.7	0.68
8/6/2003	16:44	32.1	277	0.1	7.4	4.1	56.4	0.71
8/6/2003	16:59	32.0	277	0.1	7.3	4.0	55.3	0.69
8/6/2003	17:14	32.0	277	0.1	7.3	4.1	55.5	0.68
8/6/2003	17:29	32.0	277	0.1	7.3	4.1	56.4	0.68
8/6/2003	17:44	32.0	277	0.1	7.3	4.1	56.4	0.70
8/6/2003	17:59	31.9	278	0.1	7.3	4.1	56.2	0.70
8/6/2003	18:14	31.9	278	0.1	7.3	4.1	55.8	0.67
8/6/2003	18:29	31.9	279	0.1	7.3	4.1	55.8	0.68
8/6/2003	18:44	31.9	279	0.1	7.3	4.1	56.0	0.67
8/6/2003	18:59	31.9	279	0.1	7.3	4.1	55.7	0.67
8/6/2003	19:14	31.8	279	0.1	7.3	4.0	54.9	0.68
8/6/2003	19:29	31.7	279	0.1	7.3	4.0	54.8	0.67
8/6/2003	19:44	31.7	279	0.1	7.3	4.0	54.5	0.66
8/6/2003	19:59	31.7	278	0.1	7.3	4.0	54.3	0.67
8/6/2003	20:14	31.7	277	0.1	7.3	4.0	54.3	0.68
8/6/2003	20:29	31.6	277	0.1	7.3	4.0	54.2	0.66
8/6/2003	20:44	31.6	277	0.1	7.3	4.0	54.2	0.66

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/6/2003	20:59	31.6	277	0.1	7.3	4.0	54.7	0.67
8/6/2003	21:14	31.6	278	0.1	7.3	3.9	53.6	0.67
8/6/2003	21:29	31.6	277	0.1	7.3	3.8	51.9	0.66
8/6/2003	21:44	31.6	278	0.1	7.3	3.9	52.4	0.66
8/6/2003	21:59	31.5	278	0.1	7.3	3.8	51.7	0.65
8/6/2003	22:14	31.5	277	0.1	7.3	3.8	51.0	0.64
8/6/2003	22:29	31.5	277	0.1	7.3	3.8	51.0	0.66
8/6/2003	22:44	31.5	277	0.1	7.3	3.6	49.3	0.64
8/6/2003	22:59	31.5	277	0.1	7.3	3.7	50.2	0.65
8/6/2003	23:14	31.5	278	0.1	7.2	3.6	48.4	0.65
8/6/2003	23:29	31.5	277	0.1	7.3	3.6	49.3	0.65
8/6/2003	23:44	31.5	277	0.1	7.3	3.7	49.6	0.64
8/6/2003	23:59	31.5	277	0.1	7.3	3.7	49.6	0.65
8/7/2003	0:14	31.5	277	0.1	7.2	3.6	48.8	0.65
8/7/2003	0:29	31.5	277	0.1	7.2	3.6	48.3	0.65
8/7/2003	0:44	31.5	277	0.1	7.2	3.5	48.0	0.64
8/7/2003	0:59	31.5	277	0.1	7.2	3.5	47.4	0.64
8/7/2003	1:14	31.4	277	0.1	7.2	3.5	47.7	0.61
8/7/2003	1:29	31.4	277	0.1	7.2	3.4	46.5	0.63
8/7/2003	1:44	31.4	277	0.1	7.2	3.3	44.9	0.62
8/7/2003	1:59	31.4	277	0.1	7.2	3.4	46.0	0.64
8/7/2003	2:14	31.4	277	0.1	7.2	3.3	45.2	0.63
8/7/2003	2:29	31.4	277	0.1	7.2	3.3	45.0	0.64
8/7/2003	2:44	31.3	277	0.1	7.2	3.3	44.9	0.65
8/7/2003	2:59	31.4	277	0.1	7.2	3.3	44.3	0.66
8/7/2003	3:14	31.3	277	0.1	7.2	3.2	43.4	0.65
8/7/2003	3:29	31.3	276	0.1	7.2	3.2	43.2	0.65
8/7/2003	3:44	31.3	276	0.1	7.2	3.2	43.6	0.64
8/7/2003	3:59	31.3	277	0.1	7.2	3.2	43.2	0.65
8/7/2003	4:14	31.3	277	0.1	7.2	3.2	43.2	0.65
8/7/2003	4:29	31.2	277	0.1	7.2	3.2	43.7	0.66

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

8/7/2003	4:44	31.2	276	0.1	7.2	3.3	44.5	0.66
8/7/2003	4:59	31.2	276	0.1	7.2	3.2	43.1	0.67
8/7/2003	5:14	31.2	275	0.1	7.2	3.3	44.9	0.66
8/7/2003	5:29	31.2	273	0.1	7.2	3.3	44.6	0.68
8/7/2003	5:44	31.1	273	0.1	7.2	3.4	45.6	0.65
8/7/2003	5:59	31.1	272	0.1	7.2	3.4	45.6	0.69
8/7/2003	6:14	31.1	272	0.1	7.2	3.4	45.9	0.66
8/7/2003	6:29	31.1	274	0.1	7.2	3.4	45.9	0.68
8/7/2003	6:44	31.1	275	0.1	7.2	3.4	45.6	0.65
8/7/2003	6:59	31.1	277	0.1	7.2	3.4	46.2	0.68
8/7/2003	7:14	31.1	278	0.1	7.2	3.4	46.2	0.66
8/7/2003	7:29	31.1	280	0.1	7.2	3.5	47.2	0.68
8/7/2003	7:44	31.1	283	0.1	7.3	3.4	46.2	0.69
8/7/2003	7:59	31.2	285	0.1	7.3	3.6	49.0	0.69
8/7/2003	8:14	31.2	285	0.1	7.3	3.6	49.0	0.68
8/7/2003	8:29	31.2	286	0.1	7.3	3.6	49.2	0.69
8/7/2003	8:44	31.2	286	0.1	7.3	3.6	48.7	0.71
8/7/2003	8:59	31.2	287	0.1	7.3	3.7	50.3	0.71
8/7/2003	9:14	31.1	287	0.1	7.3	3.7	49.5	0.68
8/7/2003	9:29	31.2	288	0.1	7.3	3.8	51.1	0.72
8/7/2003	9:44	31.2	289	0.1	7.3	3.8	51.6	0.70
8/7/2003	9:59	31.2	289	0.1	7.3	3.8	51.4	0.70
8/7/2003	10:14	31.2	289	0.1	7.3	3.8	51.9	0.70
8/7/2003	10:29	31.2	289	0.1	7.3	3.8	52.0	0.60
8/7/2003	10:44	31.2	289	0.1	7.4	3.9	52.4	0.70

APPENDIX H5 – BOD CALCULATIONS

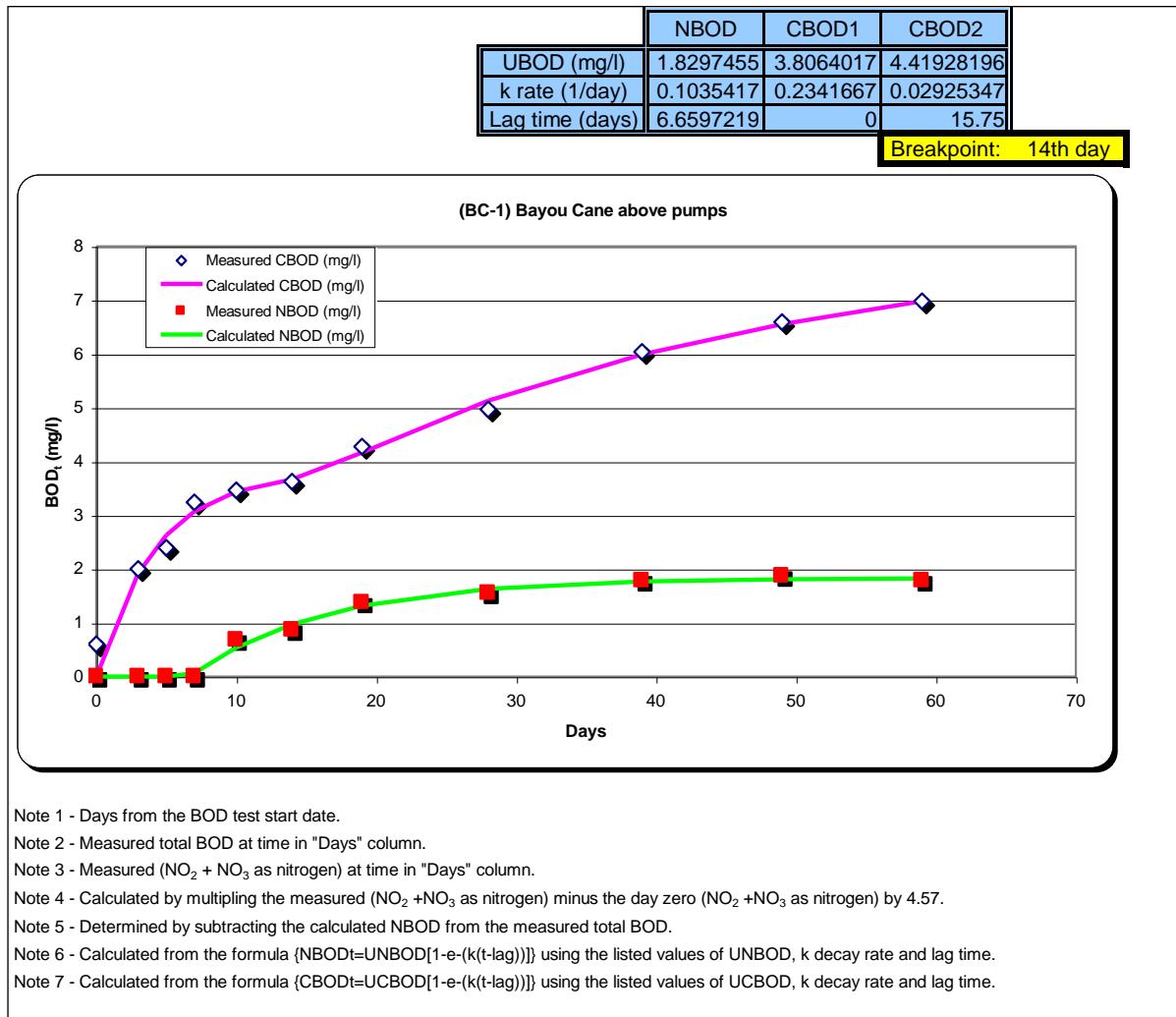
Bayou Terrebonne BOD Summary

Survey Date 8/6/03

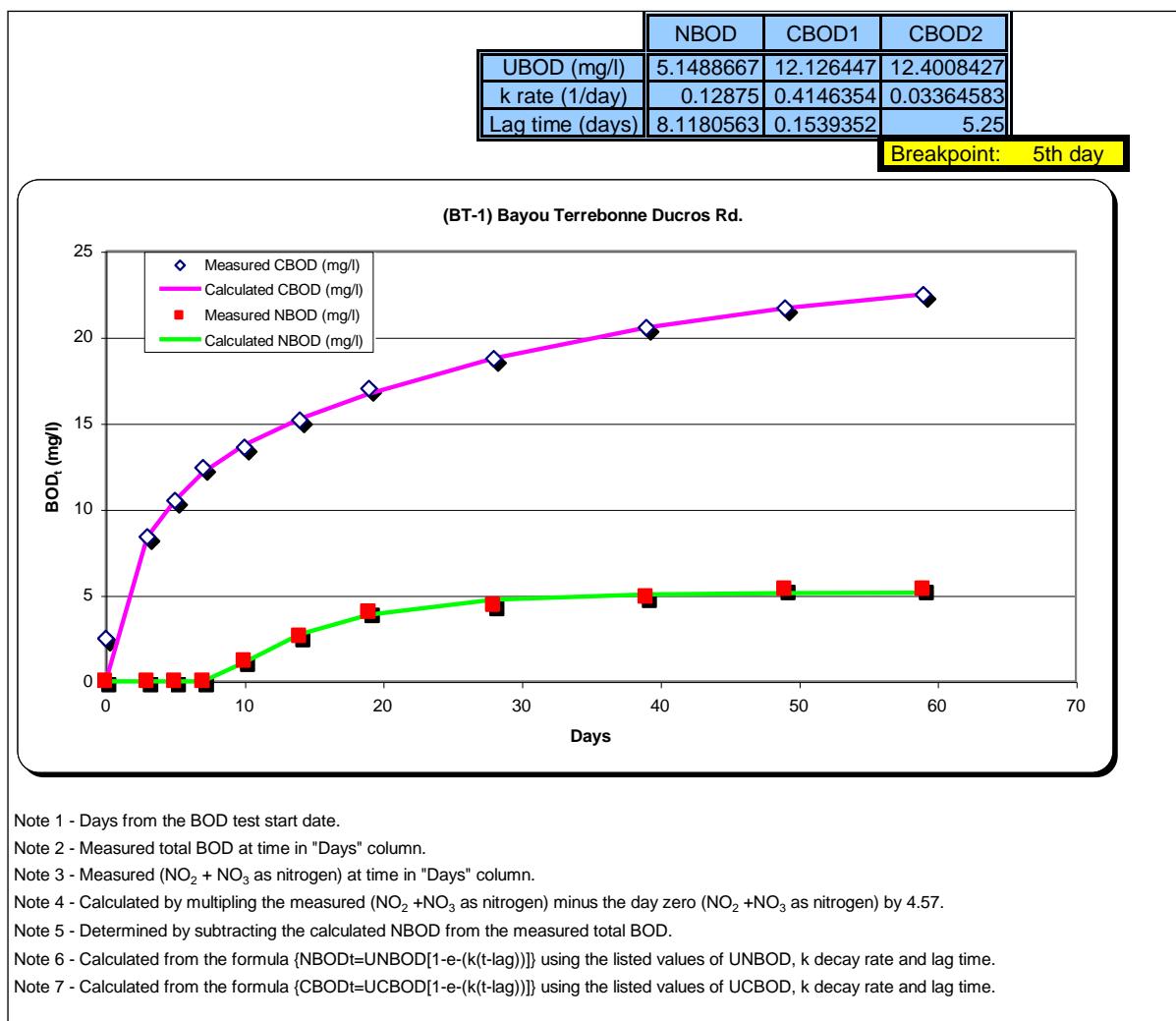
Site ID	CBOD1			CBOD2			NBOD		
	UCBOD1 (mg/l)	k rate (1/day)	Lag time (days)	UCBOD2 (mg/l)	k rate (1/day)	Lag time (days)	UNBOD (mg/l)	k rate (1/day)	Lag time (days)
BC-1	3.81	0.234	0.00	4.42	0.029	15.75	1.83	0.104	6.66
BT-01	12.13	0.415	0.15	12.40	0.034	5.25	5.15	0.129	8.12
BT-02	4.10	0.225	0.00	4.47	0.030	12.25	2.68	0.109	5.83
BT-03	3.60	0.307	0.00	4.78	0.030	11.08	3.04	0.170	4.76
BT-04	3.52	0.270	0.00	3.89	0.032	12.20	1.27	0.063	6.76
BT-05	3.24	0.329	0.00	4.21	0.031	11.67	1.46	0.075	4.86
BT-05a	4.76	0.302	0.00	5.18	0.035	12.15	2.35	0.102	3.45
BT-06	2.85	0.247	0.00	3.44	0.032	15.92	1.71	0.102	4.67
BT-07	4.62	0.306	0.00	4.07	0.031	12.64	2.08	0.093	4.96
BT-08	4.20	0.241	0.00	4.18	0.029	16.04	2.22	0.118	5.25
BT-09	5.13	0.223	0.00	4.79	0.031	15.75	2.21	0.093	4.08
BT-10	3.73	0.196	0.68	4.20	0.030	16.82	2.66	0.117	9.67
BT-11	3.63	0.412	0.58	4.07	0.031	15.26	2.54	0.170	4.62
BT-12	4.06	0.307	0.12	4.03	0.031	15.48	3.05	0.163	4.03
ICWW	4.21	0.307	0.55	3.45	0.032	16.97	2.73	0.102	0.66

Survey Stream and date:		Bayou Terrebonne (Subsegment 120301)																	
		Sample Collection date:		Analysis Start date: 08/08/03															
		Total BOD data																	
Item No.	Sample No.	Initial	Daily analysis start dates:																
		08/08/03	08/08/03	08/11/03	08/13/03	08/15/03	08/18/03	08/22/03	08/27/03	09/05/03	09/16/03								
1	(BC-1) Bayou Cane above pumps	0.60	2.00	2.40	3.30	4.00	4.60	5.60	6.60	7.80									
2	(BT-1) Bayou Terrebonne Ducros Rd.	2.50	8.40	10.50	12.40	14.70	17.90	20.90	23.50	25.60									
3	(ICWW-1) Intracoastal Waterway near gauging station	0.70	2.80	4.00	5.20	5.50	6.10	6.80	7.60	8.70									
4	(BT-2) Bayou Terrebonne Price School Rd.	0.70	2.10	2.70	3.50	4.70	5.80	7.00	8.00	9.20									
5	(BT-3) Bayou Terrebonne Recreation Rd.	0.70	2.30	2.90	4.10	5.20	6.50	7.30	8.30	9.40									
6	(BT-4) Bayou Terrebonne above weir	0.50	2.00	2.50	3.10	3.50	4.20	4.90	5.90	7.00									
7	(BT-5) Bayou Terrebonne below weir	0.60	2.10	2.50	3.20	3.60	4.30	5.00	6.00	7.00									
8	(BT-5A) Bayou Terrebonne below weir	1.20	3.00	3.80	5.00	5.70	6.60	7.70	9.00	10.30									
9	(BT-6) Bayou Terrebonne above weir	0.50	1.60	1.90	2.80	3.20	3.80	4.50	5.40	6.40									
10	(BT-7) Bayou Terrebonne below weir	1.00	2.80	3.50	4.60	5.10	5.90	6.90	7.90	9.00									
11	(BT-8) Bayou Terrebonne Funderburk Rd.	0.70	2.20	2.80	4.00	4.70	5.50	6.40	7.30	8.50									
12	(BT-9) Bayou Terrebonne Westside St.	0.90	2.70	3.40	4.70	5.40	6.30	7.30	8.40	9.80									
13	(BT-10) Bayou Terrebonne Hollywood St.	0.10	1.40	2.00	2.80	3.20	4.50	5.70	7.20	8.40									
14	(BT-11) Bayou Terrebonne Morgan St.	0.80	2.30	3.10	4.40	4.90	5.70	6.50	7.20	8.40									
15	(BT-12) Bayou Terrebonne Gabasse St.	0.90	2.40	3.40	5.00	5.70	6.40	7.30	8.20	9.20									
16																			
17																			
18																			
19																			
20																			
		(NO ₂ +NO ₃) as Nitrogen data (mg/l)																	
Item No.	Sample No.	Initial	Daily analysis start dates:																
		08/08/03	08/08/03	08/11/03	08/13/03	08/15/03	08/18/03	08/22/03	08/27/03	09/05/03	09/16/03								
1	(BC-1) Bayou Cane above pumps	0.00	0.00	0.00	0.00	0.00	0.15	0.19	0.30	0.34	0.39								
2	(BT-1) Bayou Terrebonne Ducros Rd.	0.00	0.00	0.00	0.00	0.00	0.26	0.57	0.88	0.97	1.07								
3	(ICWW-1) Intracoastal Waterway near gauging station	0.60	0.60	0.72	0.83	0.89	0.95	1.05	1.12	1.15	1.18								
4	(BT-2) Bayou Terrebonne Price School Rd.	0.00	0.00	0.00	0.00	0.06	0.23	0.34	0.47	0.51	0.53								
5	(BT-3) Bayou Terrebonne Recreation Rd.	0.00	0.00	0.00	0.05	0.19	0.38	0.53	0.57	0.63	0.66								
6	(BT-4) Bayou Terrebonne above weir	0.00	0.00	0.00	0.00	0.00	0.06	0.10	0.15	0.20	0.24								
7	(BT-5) Bayou Terrebonne below weir	0.00	0.00	0.00	0.00	0.05	0.10	0.17	0.20	0.26	0.29								
8	(BT-5A) Bayou Terrebonne below weir	0.00	0.00	0.00	0.07	0.17	0.24	0.34	0.41	0.47	0.50								
9	(BT-6) Bayou Terrebonne above weir	0.00	0.00	0.00	0.00	0.09	0.17	0.23	0.28	0.33	0.36								
10	(BT-7) Bayou Terrebonne below weir	0.00	0.00	0.00	0.00	0.09	0.17	0.24	0.34	0.40	0.46								
11	(BT-8) Bayou Terrebonne Funderburk Rd.	0.05	0.05	0.00	0.06	0.13	0.27	0.38	0.43	0.48	0.51								
12	(BT-9) Bayou Terrebonne Westside St.	0.00	0.00	0.00	0.05	0.10	0.20	0.30	0.37	0.43	0.46								
13	(BT-10) Bayou Terrebonne Hollywood St.	0.64	0.63	0.64	0.64	0.63	0.66	0.88	1.01	1.17	1.20								
14	(BT-11) Bayou Terrebonne Morgan St.	0.10	0.10	0.10	0.15	0.29	0.40	0.54	0.58	0.64	0.66								
15	(BT-12) Bayou Terrebonne Gabasse St.	0.10	0.09	0.10	0.17	0.41	0.49	0.64	0.69	0.75	0.76								
16																			
17																			
18																			
19																			
20																			

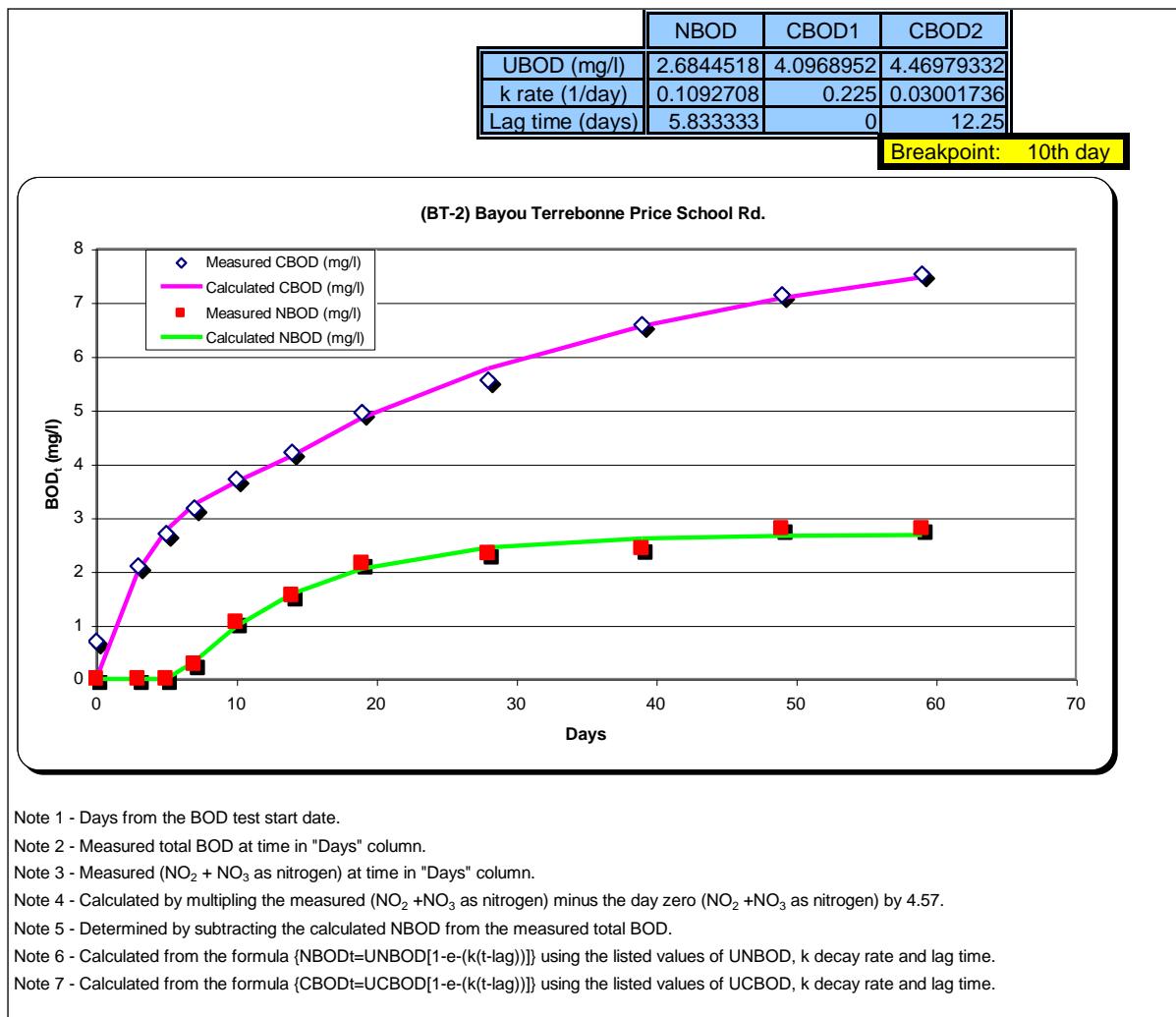
BC1 – BAYOU CANE UPSTREAM OF THE PUMPS



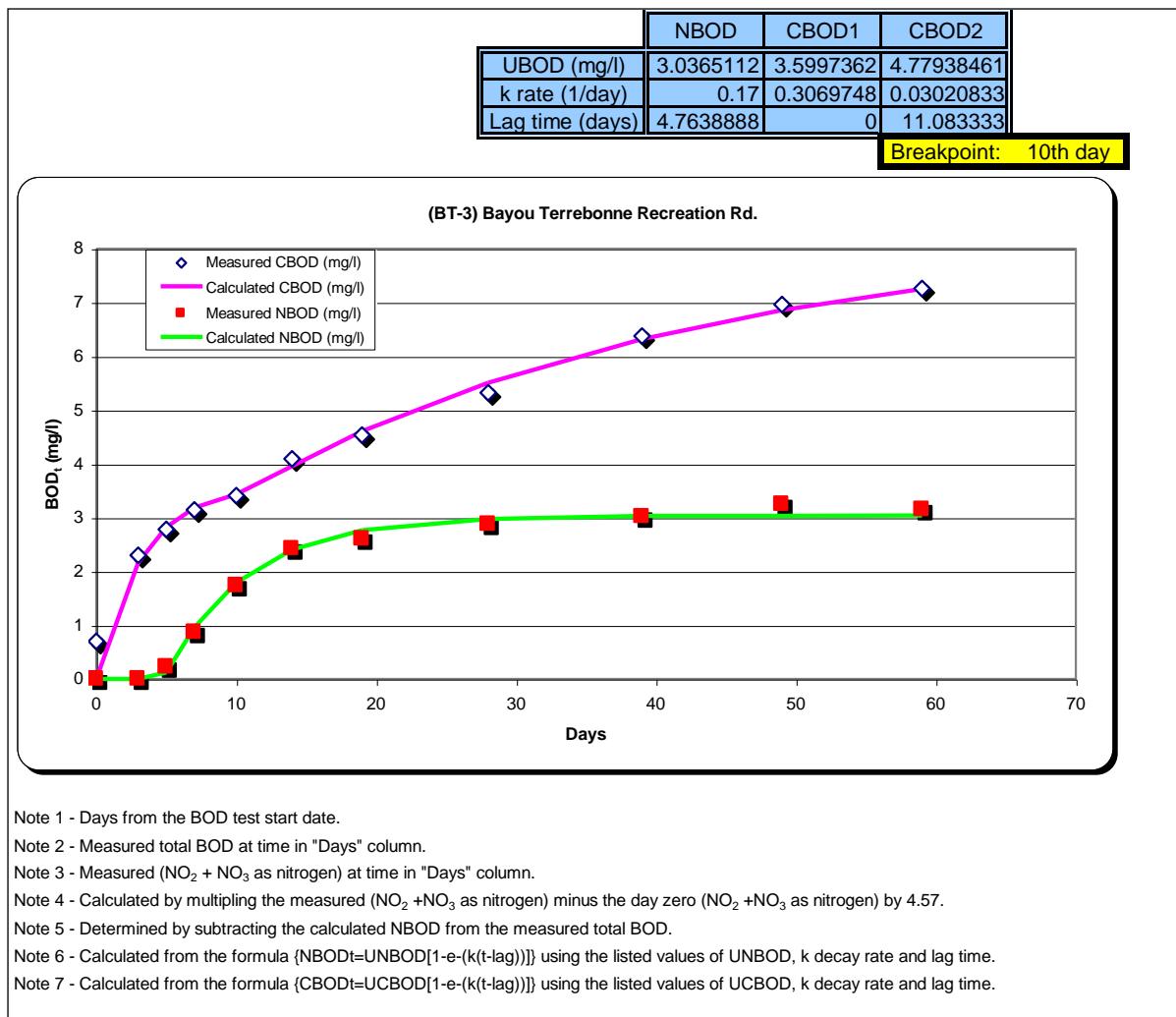
BT-1 BAYOU TERREBONNE AT DUCROS ROAD



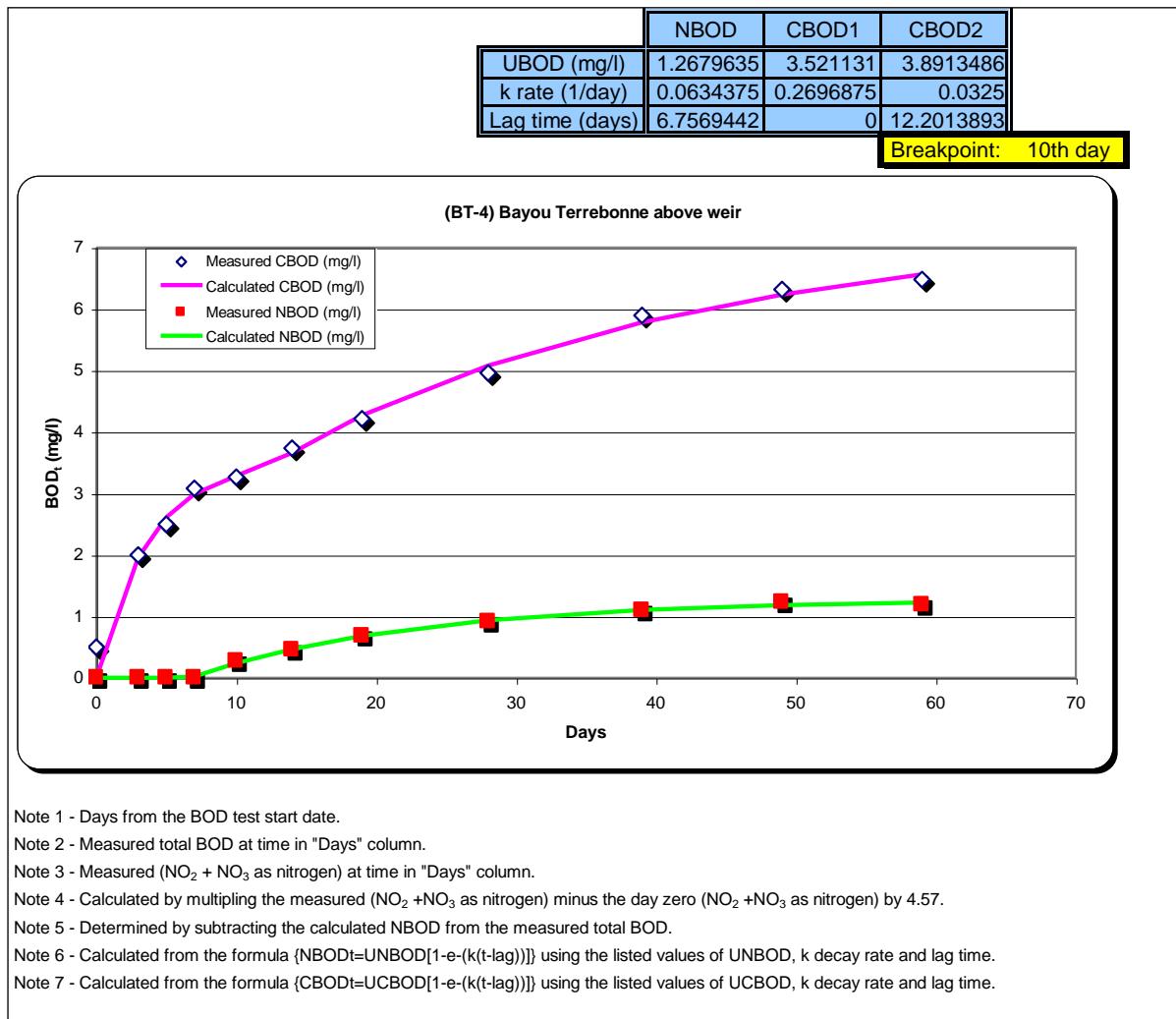
BT-2 BAYOU TERREBONNE AT PRICE SCHOOL ROAD



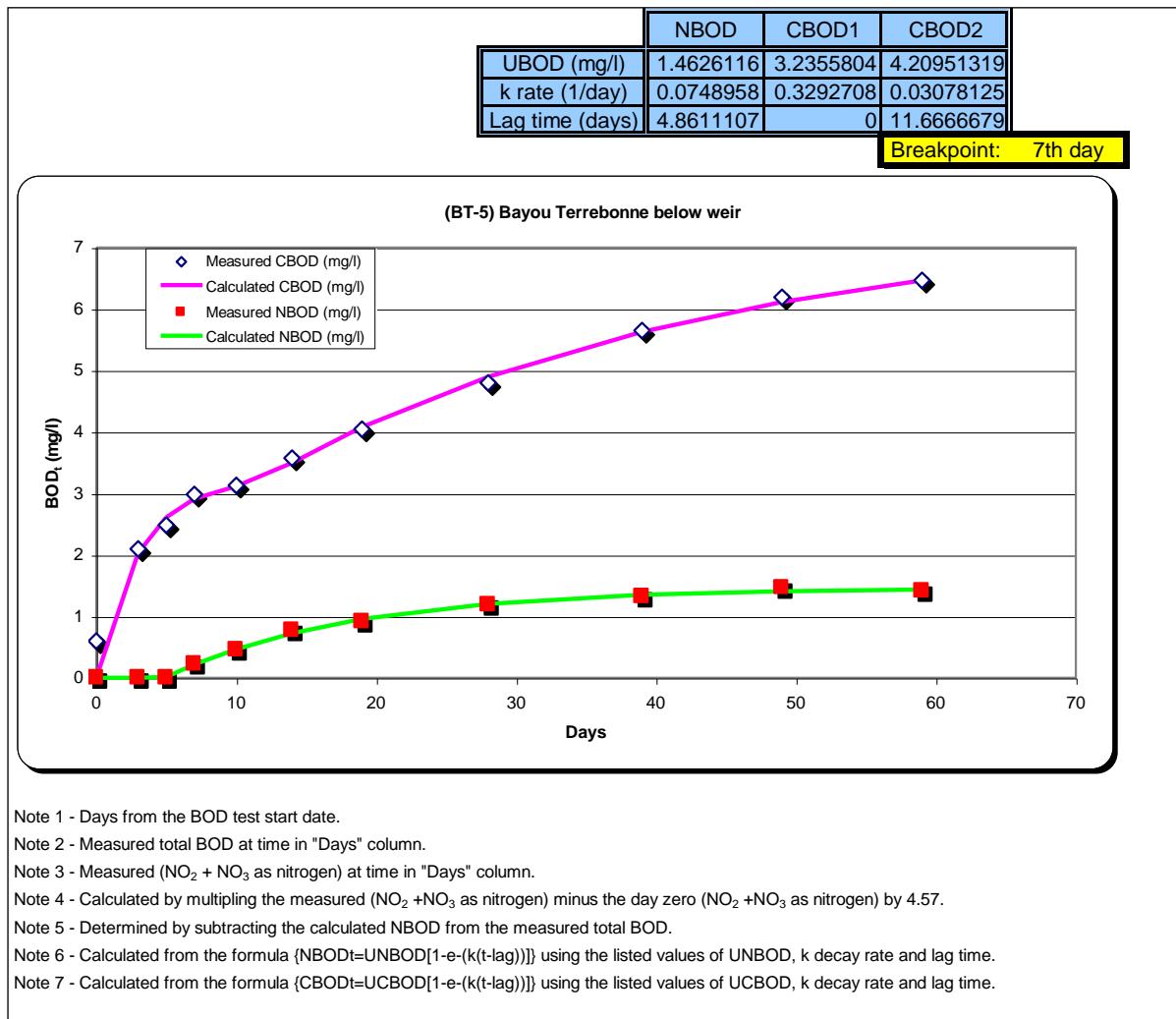
BT-3 – BAYOU TERREBONNE AT RECREATION ROAD



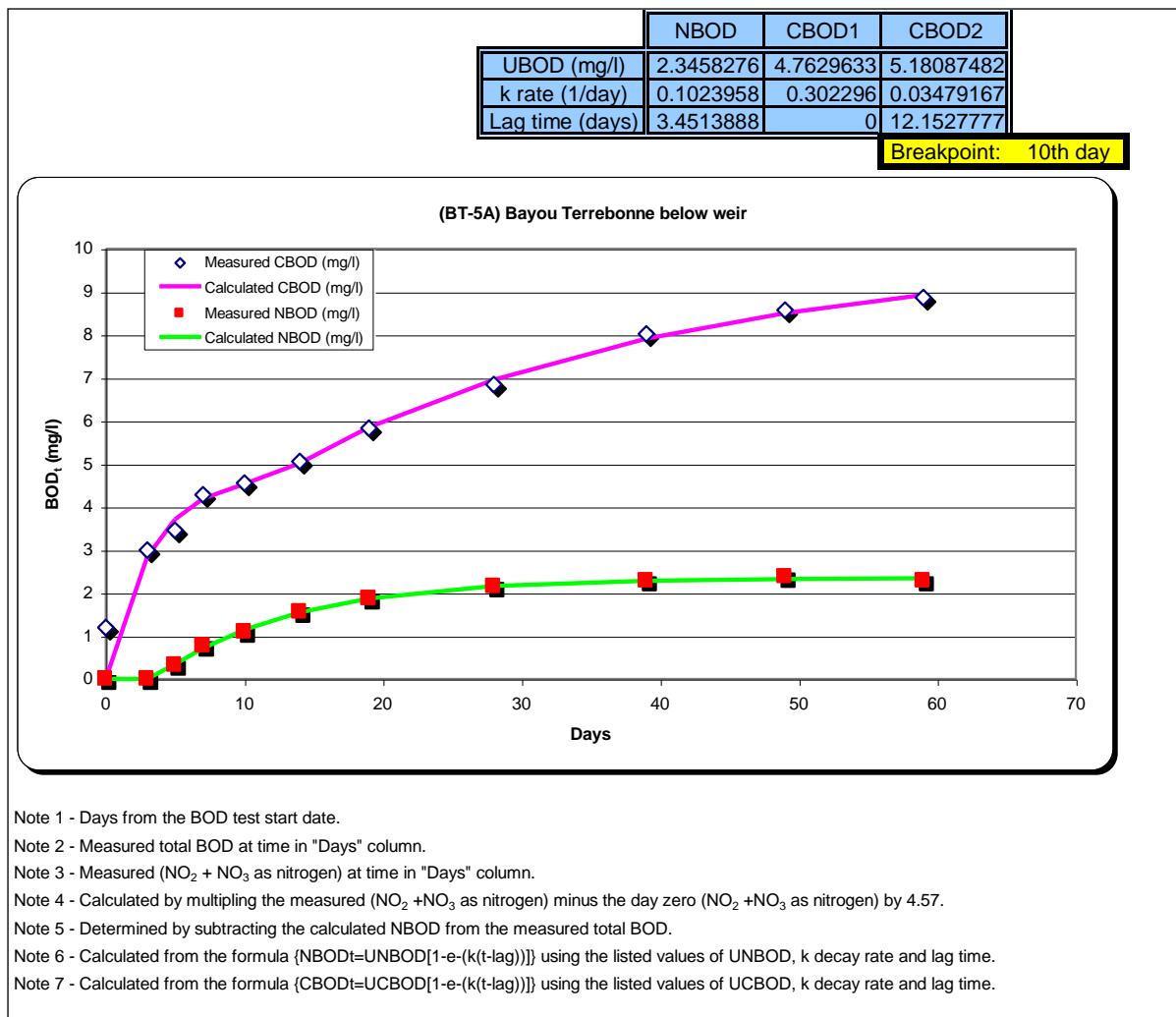
BT-4 – BAYOU TERREBONNE UPSTREAM OF WEIR AT NORTH TERREBONNE ROAD



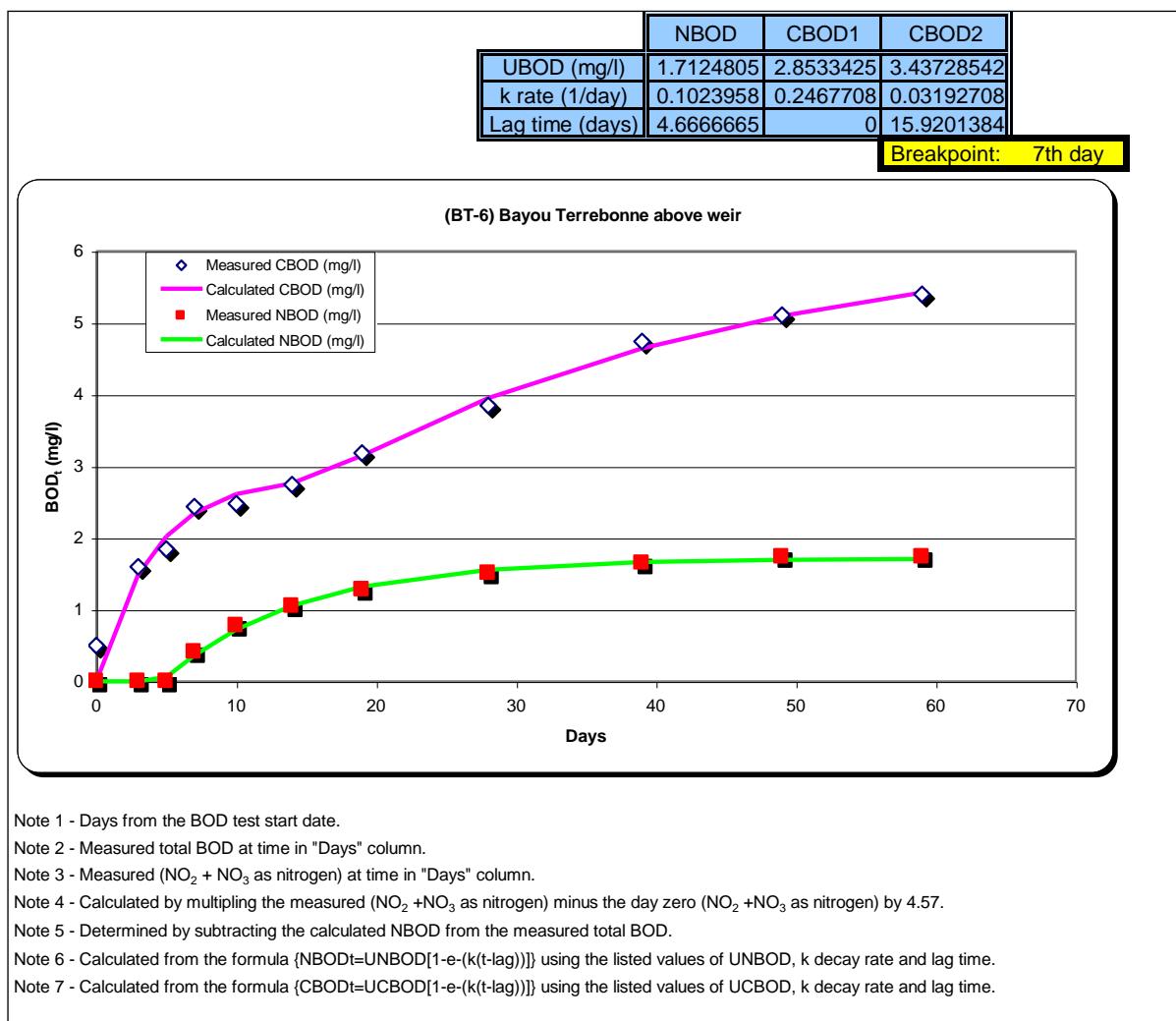
BT-5 – BAYOU TERREBONNE DOWNSTREAM OF WEIR AT NORTH TERREBONNE ROAD



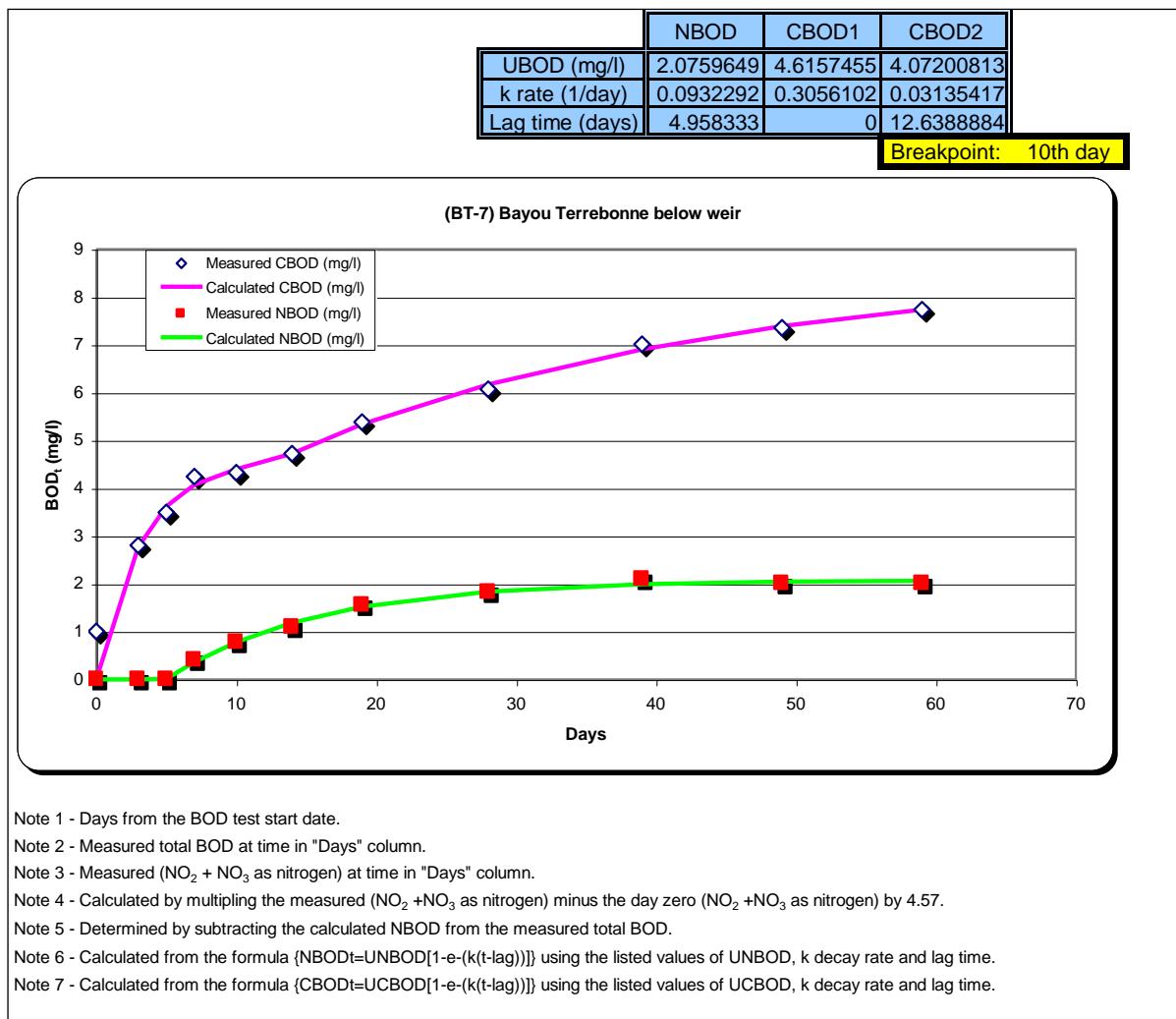
BT-5A – BAYOU TERREBONNE DOWNSTREAM OF WEIR AT COTEAU ROAD



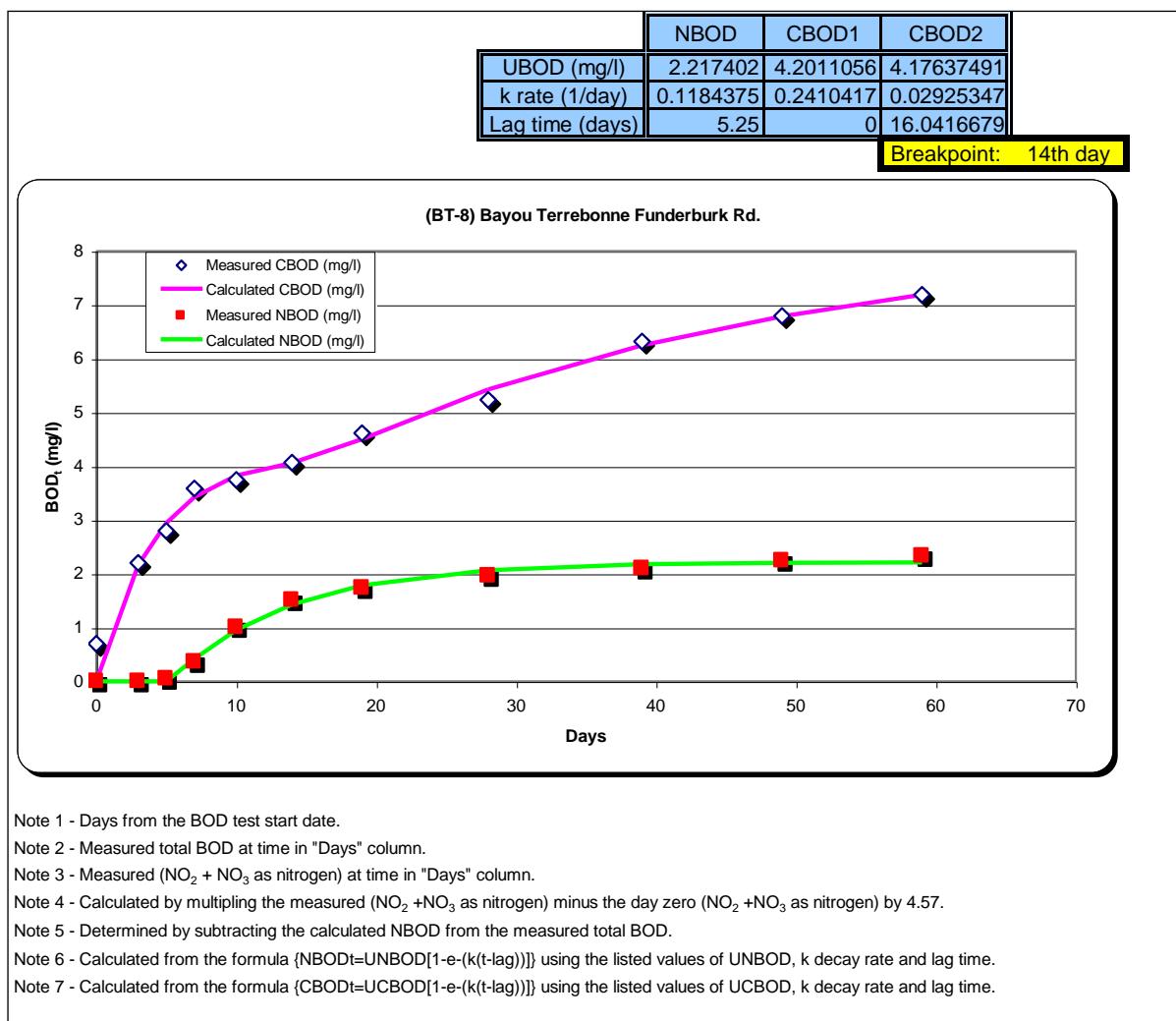
BT-6 – BAYOU TERREBONNE UPSTREAM OF WEIR AT MALL ROAD



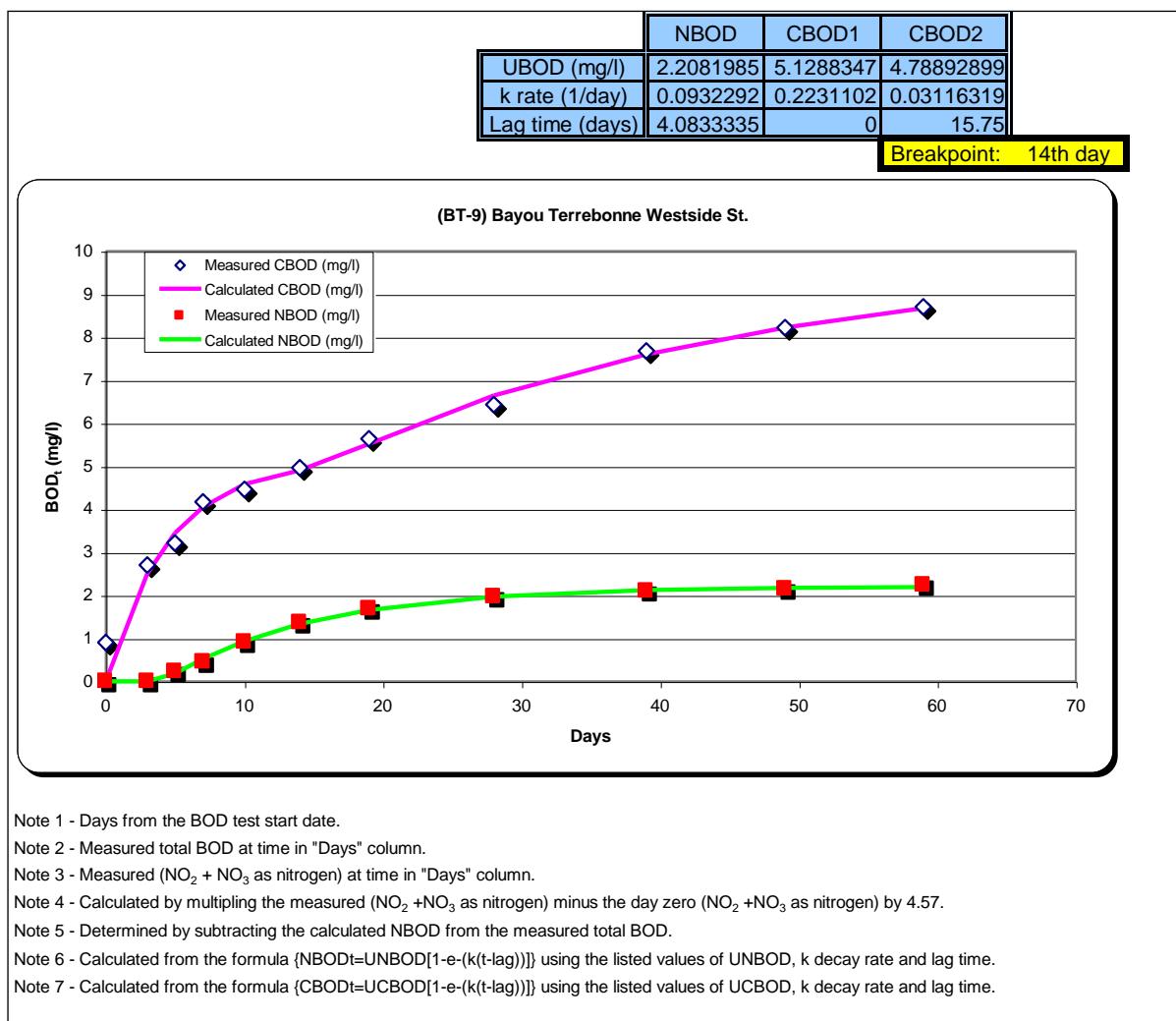
BT-7 – BAYOU TERREBONNE DOWNSTREAM OF WEIR AT MALL ROAD



BT-8 – BAYOU TERREBONNE UPSTREAM AT FUNDERBURK ROAD

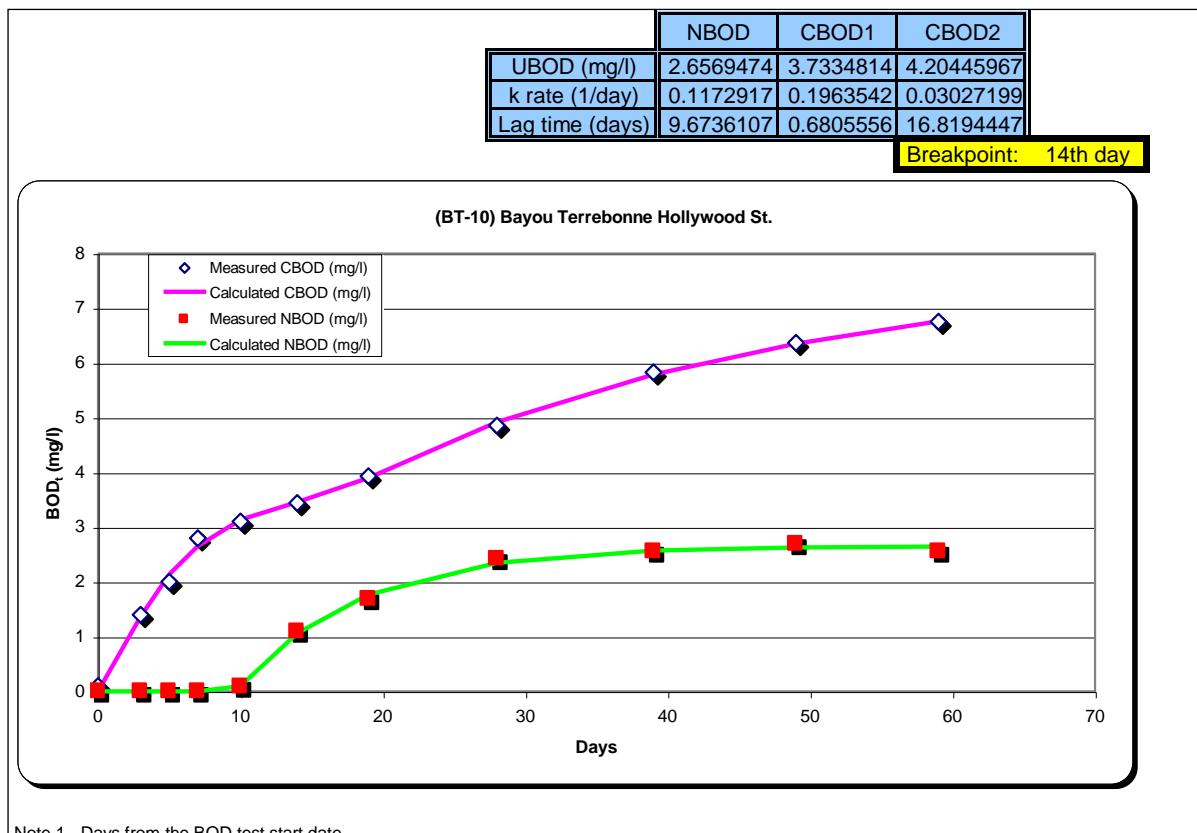


BT-9 – BAYOU TERREBONNE UPSTREAM AT WESTSIDE ST.



STREETTERREBONNE ROAD

BT-10 – BAYOU TERREBONNE AT HOLLYWOOD ST.



Note 1 - Days from the BOD test start date.

Note 2 - Measured total BOD at time in "Days" column.

Note 3 - Measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) at time in "Days" column.

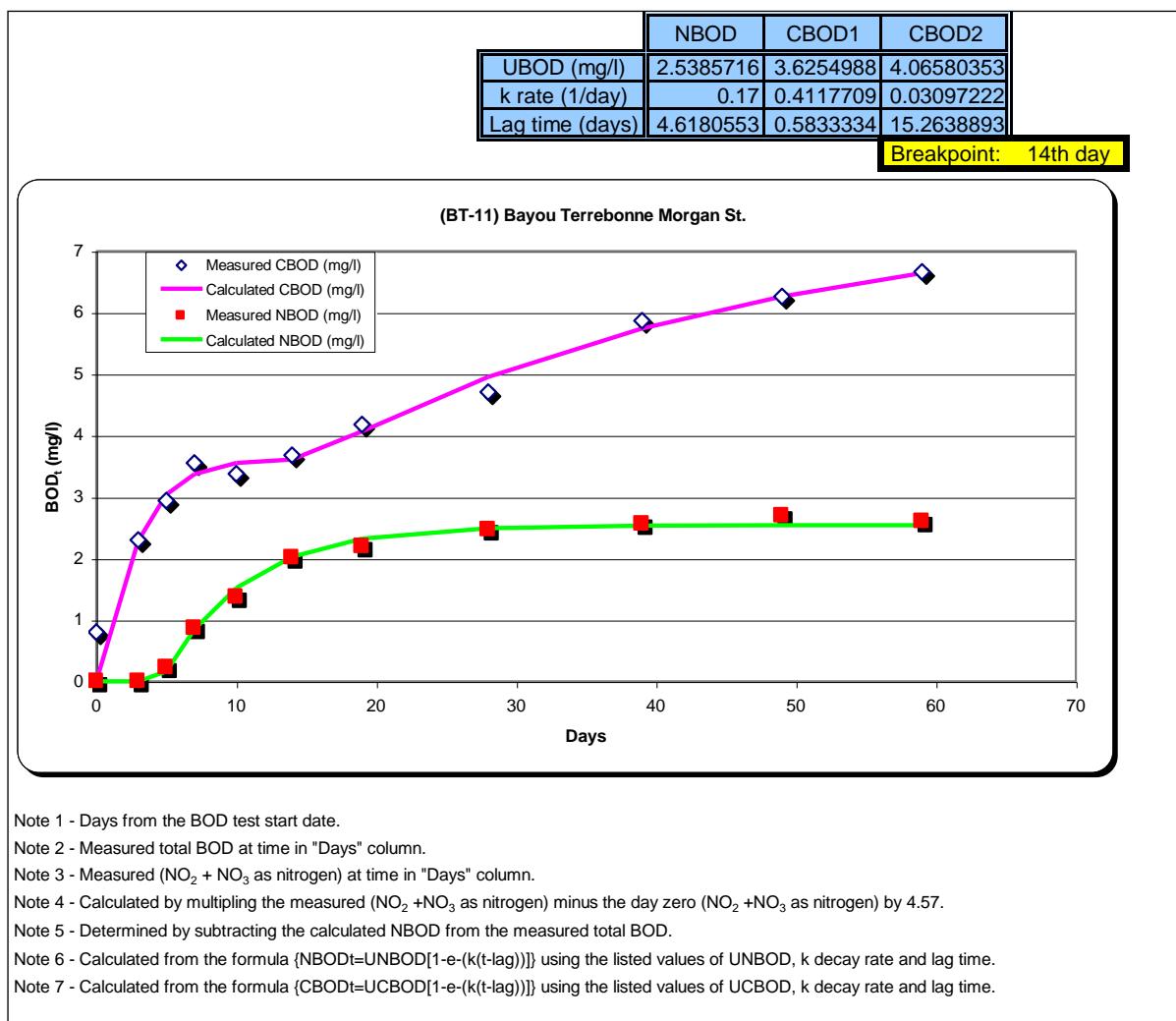
Note 4 - Calculated by multiplying the measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) minus the day zero ($\text{NO}_2 + \text{NO}_3$ as nitrogen) by 4.57.

Note 5 - Determined by subtracting the calculated NBOD from the measured total BOD.

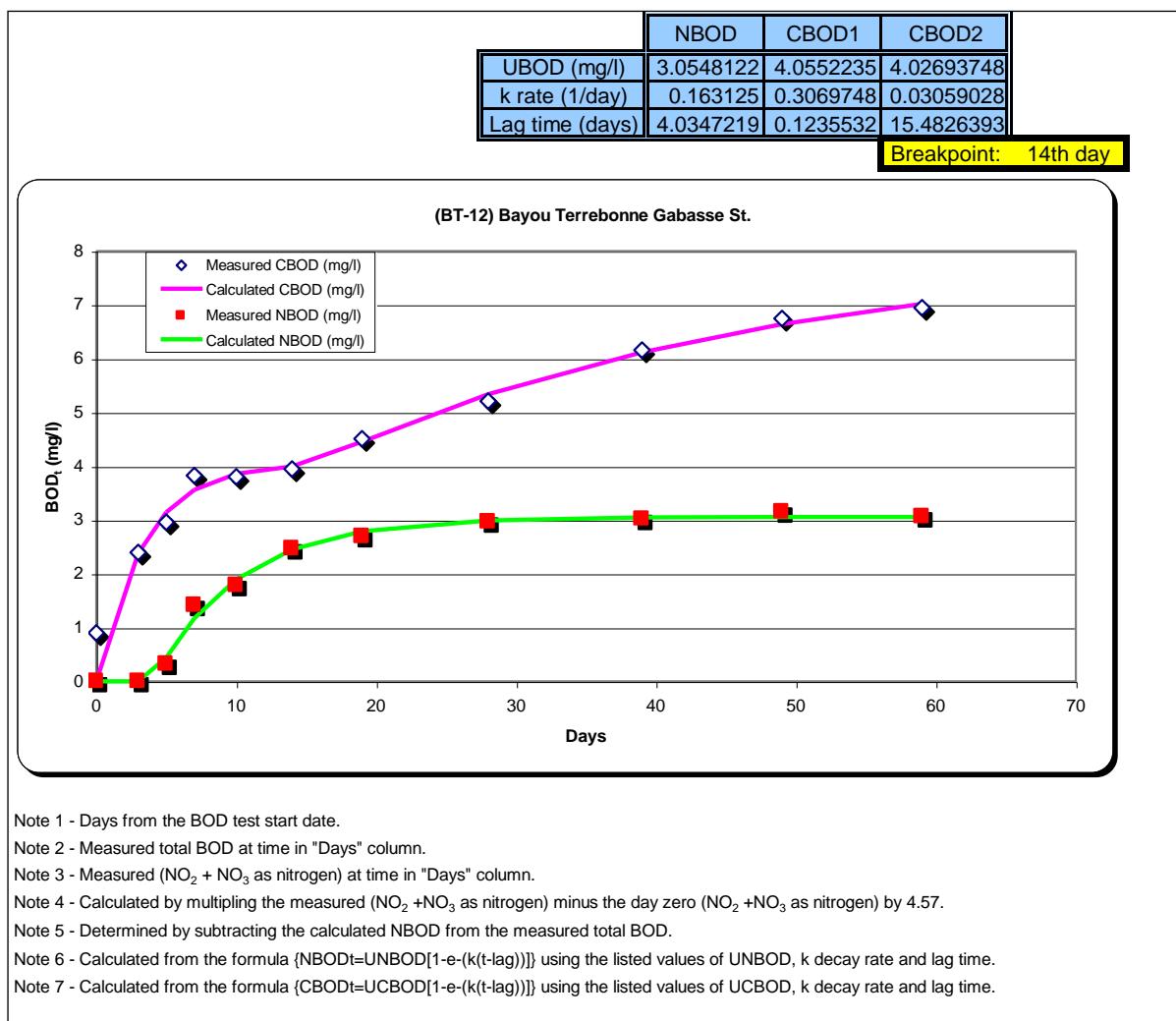
Note 6 - Calculated from the formula $\{\text{NBOD}_t = \text{UNBOD} [1 - e^{-(k(t-\text{lag}))}]\}$ using the listed values of UNBOD, k decay rate and lag time.

Note 7 - Calculated from the formula $\{\text{CBOD}_t = \text{UCBOD} [1 - e^{-(k(t-\text{lag}))}]\}$ using the listed values of UCBOD, k decay rate and lag time.

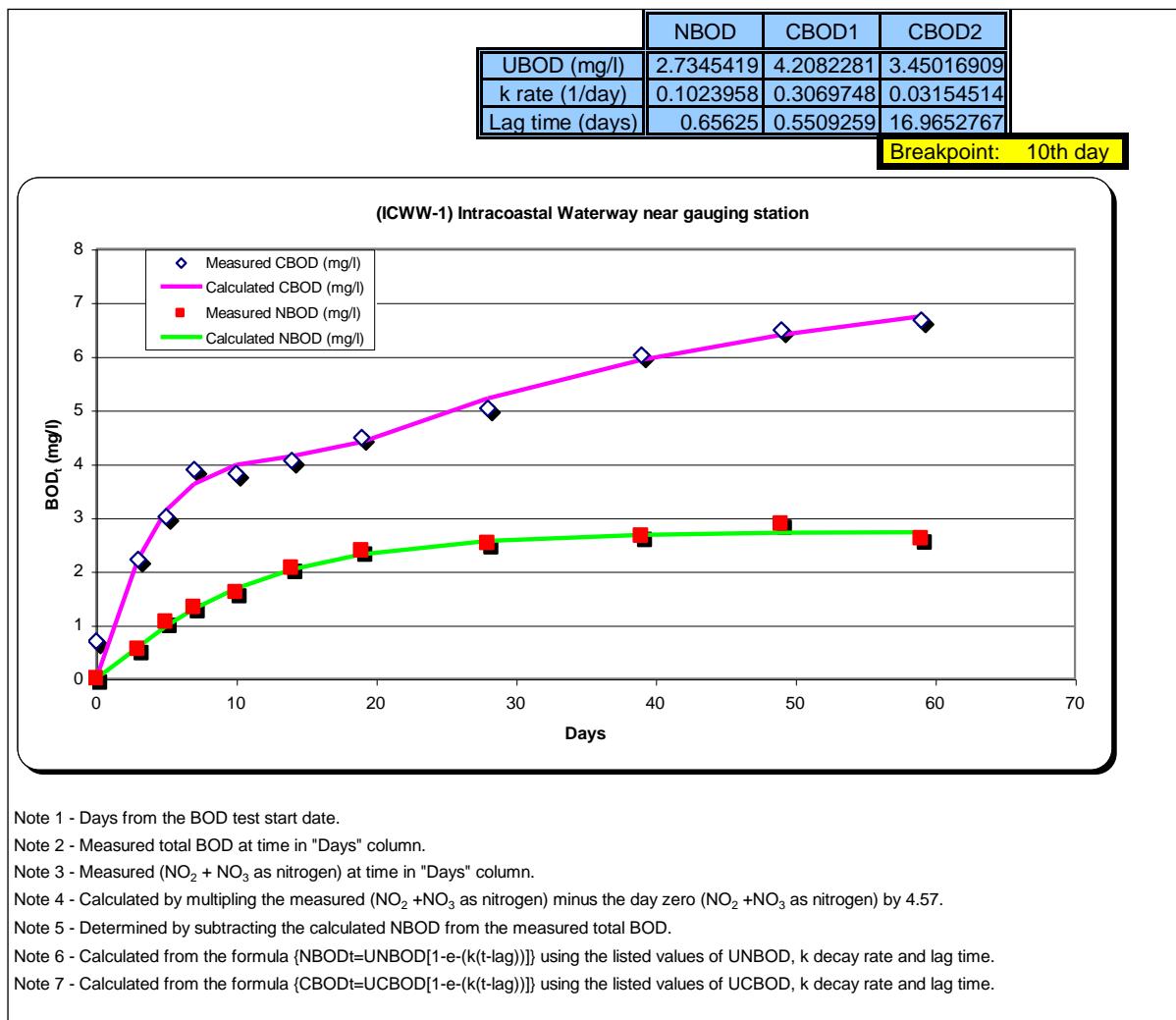
BT-11 – BAYOU TERREBONNE UPSTREAM AT MORGAN ST.



BT-12 – BAYOU TERREBONNE UPSTREAM AT GABASSE ST.



ICWW-1 – INTRACOASTAL WATERWAY NEAR GUAGING STATION



APPENDIX H6 – DYE STUDY CALCULATIONS

Bayou Terrebonne Dispersion Summary			
Survey Date 8/6/03			
Site ID	Run	Dispersion	
Below weir #3, near Sites BT-09b and BT-10	RUN 1	0.083	m ² /sec
	RUN 2	0.253	m ² /sec
Below weir #3, near Sites BT-10, BT-11 and BT-12	RUN 3	0.175	m ² /sec
	RUN 4	0.143	m ² /sec

Bayou Terrebonne TMDL Survey Dye Study Cross Section Summary					
Site	Date	Width (ft)	Width (meters)	Depth (ft)	Depth (meters)
Dye Dump at BT-09B	8/28/2003	28.0	8.53	3.95	1.20
Dye Run 1 and 2 US of Highland Rd. Bridge	8/28/2003	13.0	3.96	4.14	1.26
Dye run 1 DS of Highland Rd. Bridge	8/28/2003	24.0	7.31	3.53	1.08
Dye Run 2 bottom, US of BT-10	8/28/2003	23.0	7.01	4.03	1.23

BAYOU TERREBONNE DISPERSION CALCULATION DATA (SUBSEGMENT 120301)

<u>Northing</u>	<u>Easting</u>	<u>Name</u>	<u>Dye Concentration</u> (ug/L)	<u>Date & Time</u>	<u>Distance from Dye Dump</u>	<u>Elapsed Time</u> (hrs)	<u>Datum</u>	<u>Zone</u>
3277600	718446	dye dump	300ml	8/6/03 7:00	0.00	0.00	NAD 83 CONUS	Zone 15 North
3277495	718464	Run1	98.1	8/6/03 10:49	361.82	3.83	NAD 83 CONUS	Zone 15 North
3277535	718453	Run1	113	8/6/03 10:52	320.39	3.87	NAD 83 CONUS	Zone 15 North
3277558	718449	Run1	270	8/6/03 10:54	297.14	3.92	NAD 83 CONUS	Zone 15 North
3277576	718444	Run1	570	8/6/03 10:56	278.51	3.94	NAD 83 CONUS	Zone 15 North
3277595	718438	Run1	659	8/6/03 10:57	258.90	3.96	NAD 83 CONUS	Zone 15 North
3277624	718434	Run1	666	8/6/03 10:59	229.39	3.98	NAD 83 CONUS	Zone 15 North
3277652	718431	Run1	503	8/6/03 11:00	201.38	4.00	NAD 83 CONUS	Zone 15 North
3277674	718429	Run1	150	8/6/03 11:01	179.65	4.02	NAD 83 CONUS	Zone 15 North
3277716	718418	Run1	90.6	8/6/03 11:03	136.58	4.05	NAD 83 CONUS	Zone 15 North
3276951	718809	Run2	86.7	8/6/03 13:21	1028.44	6.37	NAD 83 CONUS	Zone 15 North
3277386	718490	Run2	119	8/6/03 13:41	487.93	6.70	NAD 83 CONUS	Zone 15 North
3277417	718481	Run2	195	8/6/03 13:44	456.04	6.73	NAD 83 CONUS	Zone 15 North
3277449	718475	Run2	278	8/6/03 13:45	423.71	6.76	NAD 83 CONUS	Zone 15 North
3277499	718462	Run2	264	8/6/03 13:49	372.48	6.83	NAD 83 CONUS	Zone 15 North
3277537	718452	Run2	316	8/6/03 13:51	333.22	6.86	NAD 83 CONUS	Zone 15 North
3277591	718440	Run2	364	8/6/03 13:53	278.19	6.90	NAD 83 CONUS	Zone 15 North
3277629	718433	Run2	201	8/6/03 13:55	239.30	6.93	NAD 83 CONUS	Zone 15 North
3277651	718429	Run2	120	8/6/03 13:56	216.94	6.95	NAD 83 CONUS	Zone 15 North
3277711	718418	Run2	87.9	8/6/03 13:58	156.54	6.98	NAD 83 CONUS	Zone 15 North

<u>Northing</u>	<u>Easting</u>	<u>Name</u>	<u>Dye Concentration</u> <u>(ug/L)</u>	<u>Date & Time</u>	<u>Distance from Dye Dump</u>	<u>Elapsed Time</u> <u>(hrs)</u>	<u>Datum</u>	<u>Zone</u>
3276532	721322	Run3	127	8/6/03 19:38	3717.64	12.64	NAD 83 CONUS	Zone 15 North
3276532	721143	Run3	130	8/6/03 19:41	3539.11	12.69	NAD 83 CONUS	Zone 15 North
3276495	720903	Run3	115	8/6/03 19:46	3295.50	12.78	NAD 83 CONUS	Zone 15 North
3276422	720718	Run3	114	8/6/03 19:51	3096.30	12.86	NAD 83 CONUS	Zone 15 North
3276369	720572	Run3	122	8/6/03 19:55	2939.62	12.92	NAD 83 CONUS	Zone 15 North
3276333	720277	Run3	122	8/6/03 20:00	2638.42	13.00	NAD 83 CONUS	Zone 15 North
3276429	719763	Run3	101	8/6/03 20:08	2108.70	13.15	NAD 83 CONUS	Zone 15 North
3276501	719579	Run3	95.5	8/6/03 20:14	1911.11	13.24	NAD 83 CONUS	Zone 15 North
3276746	719145	Run3	92.2	8/6/03 20:28	1411.37	13.47	NAD 83 CONUS	Zone 15 North
3276995	718760	Run3	102	8/6/03 20:42	951.80	13.71	NAD 83 CONUS	Zone 15 North
3277030	718713	Run3	139	8/6/03 20:45	895.09	13.75	NAD 83 CONUS	Zone 15 North
3277080	718676	Run3	227	8/6/03 20:46	832.43	13.78	NAD 83 CONUS	Zone 15 North
3277135	718639	Run3	326	8/6/03 20:48	767.09	13.81	NAD 83 CONUS	Zone 15 North
3277175	718610	Run3	380	8/6/03 20:50	717.52	13.85	NAD 83 CONUS	Zone 15 North
3277231	718570	Run3	338	8/6/03 20:53	649.97	13.89	NAD 83 CONUS	Zone 15 North
3277293	718537	Run4	89.8	8/7/03 9:08	572.49	26.15	NAD 83 CONUS	Zone 15 North
3277158	718623	Run4	112	8/7/03 9:13	732.09	26.22	NAD 83 CONUS	Zone 15 North
3277039	718708	Run4	151	8/7/03 9:18	877.95	26.30	NAD 83 CONUS	Zone 15 North
3276963	718790	Run4	242	8/7/03 9:20	987.94	26.35	NAD 83 CONUS	Zone 15 North
3276879	718910	Run4	292	8/7/03 9:23	1134.12	26.40	NAD 83 CONUS	Zone 15 North
3276819	719005	Run4	256	8/7/03 9:25	1246.82	26.43	NAD 83 CONUS	Zone 15 North

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

<u>Northing</u>	<u>Easting</u>	<u>Name</u>	<u>Dye Concentration</u> <u>(ug/L)</u>	<u>Date & Time</u>	<u>Distance from Dye Dump</u>	<u>Elapsed Time</u> <u>(hrs)</u>	<u>Datum</u>	<u>Zone</u>
3276780	719083	Run4	160	8/7/03 9:27	1333.27	26.46	NAD 83 CONUS	Zone 15 North
3276729	719172	Run4	86.6	8/7/03 9:29	1436.24	26.50	NAD 83 CONUS	Zone 15 North
3276601	719385	Run4	76.9	8/7/03 9:33	1685.39	26.56	NAD 83 CONUS	Zone 15 North
3276449	719711	Run4	79.9	8/7/03 9:42	2045.77	26.71	NAD 83 CONUS	Zone 15 North
3276528	721304	Run4	104	8/7/03 10:05	3692.96	27.09	NAD 83 CONUS	Zone 15 North
3276523	721433	Run4	117	8/7/03 10:07	3822.10	27.13	NAD 83 CONUS	Zone 15 North

6/28/2004 @ 11:00 AM

GAUSS-NEWTON NONLINEAR REGRESSION

INTRODUCTION

Curve fitting is a technique used by engineers and scientists to aid them in the analysis and interpretation of experimental data. The data is typically a "large" collection of (x,y) points. The goal is to find a mathematical model function, $f(\mathbf{x})$, that fits the **trend** and the **level** of the data.

When performing curve fitting, one must understand two things. First, the choice of the model to be used to fit the data is just that: a choice. The form of the mathematical function is typically based on the trend of the data, some physical interpretation of the phenomena involved in an experiment, experience, or some other source of input. Second, the unknowns of the problem are the parameters of the model –and not the independent variable(s). In other words, once a model, such as the one mentioned above, is picked, the goal becomes to find a and b in order to make the curve of $f(\mathbf{x})$ go through the (x,y) points.

In many cases, it is not possible to transform the nonlinear model into a linear one. In other cases, the transformation is possible but results in the loss of sensitivity. Under such circumstances, direct nonlinear regression should be used. There are many algorithms that have been developed specifically for this purpose. One such a model is known as the Gauss-Newton algorithm. The theoretical formulation of the algorithm and its applicability can be found in many references [1-3] and will be discussed thoroughly in class.

FLOWCHART

The following flowchart provides the basic structure of the Gauss-Newton algorithm. Given a set of (x,y) data points and a model $f(\mathbf{x}, \mathbf{a})$. The aim is the find the vector of parameters, \mathbf{a} , such that the mean square error between data and model is minimum. The steps involved in finding the solution using the Gauss-Newton algorithm are:

- (1) Pick an initial guess for each parameter.
- (2) Compute the matrix \mathbf{Z} .
- (3) Compute the difference vector \mathbf{D} .
- (4) Compute the perturbation in the parameters $\Delta\mathbf{a} = \left[\left((\mathbf{Z})^T \cdot \mathbf{Z} \right)^{-1} \cdot (\mathbf{Z})^T \right] \cdot \mathbf{D}$.
- (5) Update the new parameters $\mathbf{a} = \mathbf{a} + \Delta\mathbf{a}$.
- (6) Keep updating until you meet your convergence criteria.

REFERENCES

- [1] Chapra, S. C. and Canale, R. P., Numerical Methods For Engineers, McGraw Hill, 1988
- [2] Lastman G. J. and Sinha N. K., Microcomputer-Based Numerical Methods for Science and Engineering, Saunders College Publishing, 1989
- [3] Mathews J. H., Numerical Methods for Mathematics, Science, and Engineering, Prentice Hall, 1992
- [4] Mathsoft, Mathcad User's Guide, Mathsoft, 1995

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Mathcad IMPLEMENTATION

The Gauss–Newton algorithm was implemented using the new programming capability of Mathcad PLUS 6.0. The function $\text{GN}(X, Y, F, a, \text{Max})$ works as follows:

- (1) The user provides several inputs:
 - (a) X and Y are two arrays containing the experimental data. The data need not be sorted.
 - (b) F is a vector function containing the model as its first element. Subsequent elements contain the derivatives of the model with respect to each of the parameters (the Mathcad symbolic processor may be used to find these derivatives).
 - (c) a is the vector containing the initial guesses of the parameters of the model.
 - (d) Max represent the maximum number of iterations that the user allows.

- (2) Mathcad returns the last estimate of the parameters.

```
GN(X, Y, F, a, Max) := | for Iteration ∈ 0 .. Max
                         |   for j ∈ 0 .. last(a)
                         |     for i ∈ 0 .. last(X)
                         |       Zi,j ← F(Xi,a)j+1
                         |     for i ∈ 0 .. last(X)
                         |       Y1i ← F(Xi,a)0
                         |     Δa ← (ZT · Z)-1 · ZT · (Y - Y1)
                         |     b ← a
                         |     a ← b + Δa
                         |
                         a
```

Experimental_Data_Run4 :=
$$\begin{pmatrix} 572.4901688 & 0 \\ 732.0926327 & 12 \\ 877.9479425 & 51 \\ 987.9355696 & 142 \\ 1134.122817 & 192 \\ 1246.821528 & 156 \\ 1333.272138 & 60 \\ 1436.243938 & 0 \end{pmatrix}$$

6/28/2004 @ 11:00 AM

From experience, it is known that a suitable model for the above data has the form:

$$\frac{1 \cdot 10^6 \cdot m_{dye}}{A_x \cdot 4 \cdot \pi \cdot \left(0.11 \cdot u \cdot \frac{w^2}{h} \right) \cdot t} \cdot e^{-4 \cdot \left(\frac{x - u_{adv} \cdot t}{0.11 \cdot u \cdot \frac{w^2}{h}} \right)^2}$$

Solution

Distance from injection point (meters): $x := (\text{Experimental_Data_Run4})^{(0)}$

Dye Concentration ($\mu\text{g/L}$ or ppb): $y := \text{Experimental_Data_Run4}^{(1)}$

Depth of stream (meters): $h := 1.219$

Width of stream (meters): $w := 7.315$

Cross sectional area of stream (m^2): $A_x := w \cdot h$ $A_x = 8.917$

Time elapsed since dye injection (sec): $t := 9.549 \times 10^4$

Mass of dye injected (kg): $m_{dye} := 4.082 \cdot 0.2$

Assumed 4.082 kg (lbs.) of solution.

Solution is 20% dye so mult by 0.2.

Concentration function:

$$f(x, K_d, u_{adv}) := \frac{1 \cdot 10^6 \cdot m_{dye}}{A_x \cdot (4 \cdot \pi \cdot K_d \cdot t)^{0.5}} \cdot e^{-4 \cdot \frac{(x - u_{adv} \cdot t)^2}{K_d \cdot t}}$$

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First, we need to give initial guesses to the unknown parameters $a (K_d)$ and $b (u_{adv})$. Note that these initial guesses must be chosen carefully since they control to a great degree the success and rate of convergence of the Gauss–Newton algorithm.

$$\mathbf{a} := \begin{pmatrix} 0.02 \\ 0.01 \end{pmatrix}$$

Second, we need to build a vector function $F(x, a)$ that contains the model and its derivatives with respect to a and b .

$$F(x, a) := \begin{bmatrix} \frac{(x-a_1 \cdot t)^2}{1 \cdot 10^6 \cdot m_{dye} \cdot e^{-4 \cdot a_0 \cdot t}} \\ -250000 \cdot \frac{m_{dye}}{A_x (\pi \cdot a_0 \cdot t)^{1.5}} \cdot \exp \left[\frac{-1}{4} \cdot \frac{(x-a_1 \cdot t)^2}{a_0 \cdot t} \right] \cdot \pi \cdot t + 125000 \cdot \frac{m_{dye}}{A_x (\pi \cdot a_0 \cdot t)^5} \cdot \frac{(x-a_1 \cdot t)^2}{(a_0)^2 \cdot t} \cdot \exp \left[\frac{-1}{4} \cdot \frac{(x-a_1 \cdot t)^2}{a_0 \cdot t} \right] \\ 250000 \cdot \frac{m_{dye}}{A_x (\pi \cdot a_0 \cdot t)^5} \cdot \frac{(x-a_1 \cdot t)}{a_0} \cdot \exp \left[\frac{-1}{4} \cdot \frac{(x-a_1 \cdot t)^2}{a_0 \cdot t} \right] \end{bmatrix}$$

After five iterations:

$$\begin{pmatrix} K_d \\ u_{adv} \end{pmatrix} := GN(x, y, F, a, 5)$$

$$K_d = 0.143$$

$$u_{adv} = 0.012$$

$$Model(v) := f(v, K_d, u_{adv})$$

$$ry(x, y, Model) = 94.679\%$$

After ten iterations:

$$\begin{pmatrix} K_d \\ u_{adv} \end{pmatrix} := GN(x, y, F, a, 10)$$

$$K_d = 0.142648$$

$$u_{adv} = 0.011643$$

$$Model(v) := f(v, K_d, u_{adv})$$

$$ry(x, y, Model) = 94.679\%$$

After one hundred iterations:

$$\begin{pmatrix} K_d \\ u_{adv} \end{pmatrix} := GN(x, y, F, a, 100)$$

$$K_d = 0.142648$$

$$u_{adv} = 0.011643$$

$$Model(v) := f(v, K_d, u_{adv})$$

$$ry(x, y, Model) = 94.679\%$$

Dispersion (m^2/sec):

$$K_d \cdot m^2 \cdot sec^{-1} = 0.143 \frac{m^2}{sec}$$

Advection velocity (m/sec):

$$u_{adv} \cdot m \cdot sec^{-1} = 0.012 \frac{m}{sec}$$

Model accounts for $ry(x, y, Model) = 94.679\%$ of data.

6/28/2004 @ 11:00 AM

$xn := \min(x) \cdot .90 .. \max(x) \cdot 1.05$

$i := 0 .. \text{last}(x)$

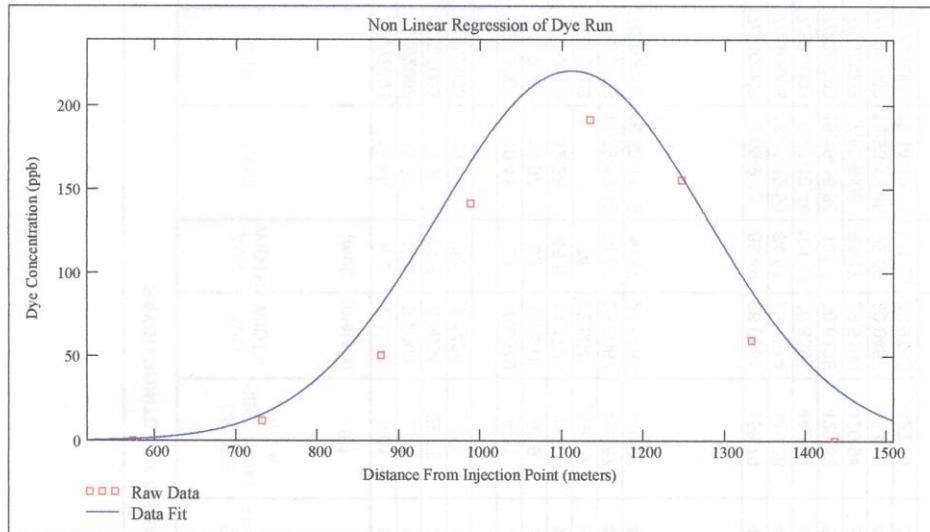


Figure 1: Final fit of the data using the Gauss-Newton algorithm

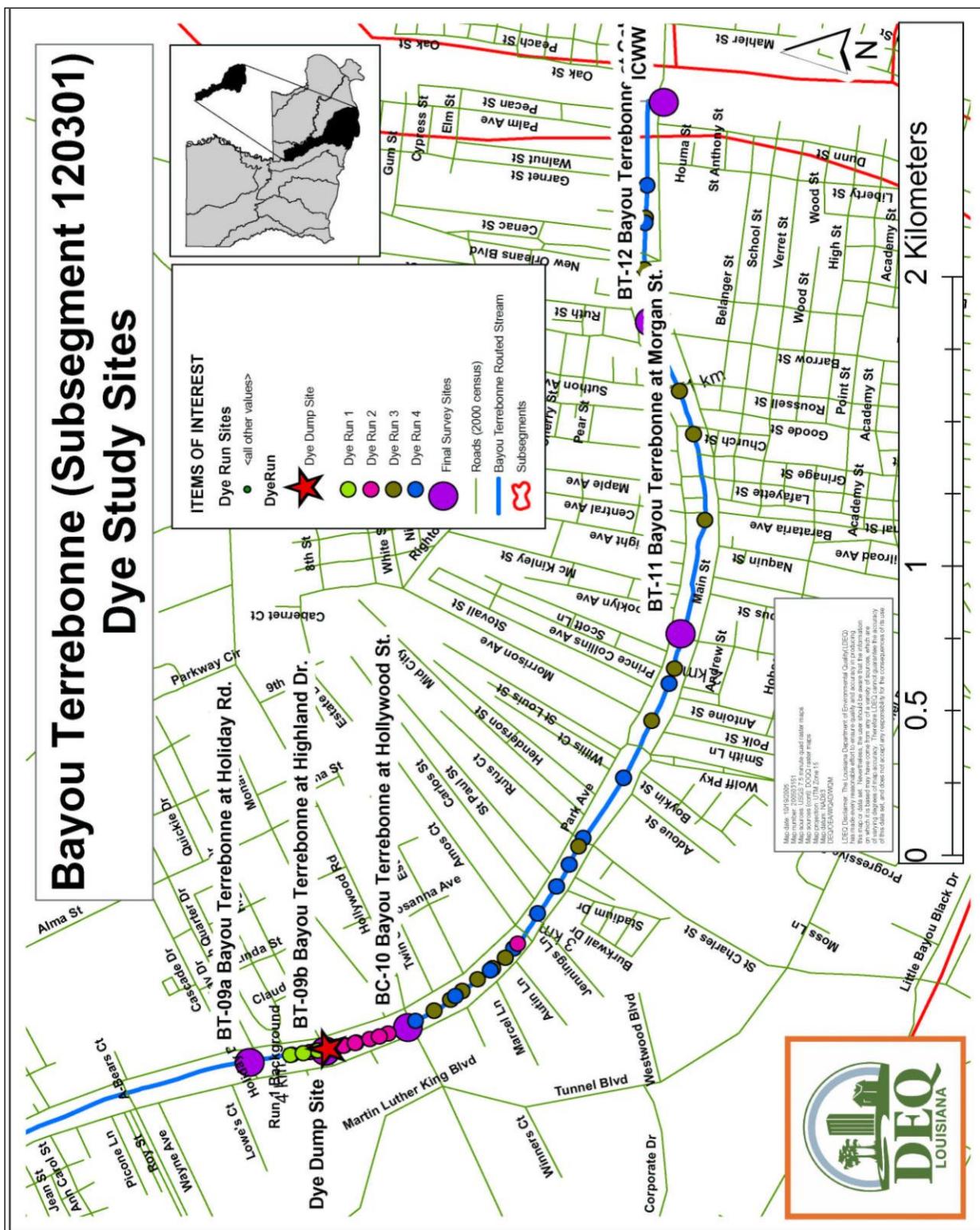
THE GOODNESS OF FIT

$$\text{Total Sum of Squares: } S_{\text{Ty}}(Y) = (\lvert Y - \text{mean}(Y) \rvert)^2 \quad S_{\text{Ty}}(y) = 4.074 \times 10^4$$

$$\text{Error Sum of Squares: } S_{\text{ry}}(X, Y, \text{Model}) = \left(\lvert Y - \overrightarrow{\text{Model}(X)} \rvert \right)^2 \quad S_{\text{ry}}(x, y, \text{Model}) = 4.220 \times 10^3$$

$$\text{Regression Sum of Squares: } S_{\text{Ty}}(Y) - S_{\text{ry}}(X, Y, \text{Model}) \quad S_{\text{Ty}}(y) - S_{\text{ry}}(x, y, \text{Model}) = 3.652 \times 10^4$$

$$\text{Proportion of Variance: } r_{\text{y}}(X, Y, \text{Model}) = \sqrt{\frac{S_{\text{Ty}}(Y) - S_{\text{ry}}(X, Y, \text{Model})}{S_{\text{Ty}}(Y)}} \quad r_{\text{y}}(x, y, \text{Model}) = 0.947$$



Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

STREAM CROSS-SECTION SPREADSHEET					
Site Number: <u>BT-09B</u>		Subsegment: <u>120301</u>	Waterbody: <u>Bayou Terrebonne</u>		
Site Description: <u>Dye Dump, Dye Mid for run 1 and 2/@BT-09B</u>					
Type of Equipment: <input type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotrac <input checked="" type="checkbox"/> Manual Initial Bank: <input type="checkbox"/> RDB <input checked="" type="checkbox"/> LDB Tapedown: <u>7.04</u> Guage Height: Date: <u>8/28/2003</u>					
Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	0.0	0.50	1.00	0.50	
2	1.0	1.00	1.50	1.50	1.36%
3	2.0	1.50	2.60	3.90	3.53%
4	4.0	2.00	3.70	7.40	6.70%
5	6.0	2.00	3.20	6.40	5.79%
6	8.0	2.00	3.20	6.40	5.79%
7	10.0	2.00	4.60	9.20	8.33%
8	12.0	2.00	5.40	10.80	9.77%
9	14.0	2.00	5.40	10.80	9.77%
10	16.0	2.00	5.20	10.40	9.41%
11	18.0	2.00	5.00	10.00	9.05%
12	20.0	2.00	4.40	8.80	7.96%
13	22.0	2.00	3.60	7.20	6.52%
14	24.0	2.00	3.60	7.20	6.52%
15	26.0	2.00	3.50	7.00	6.33%
16	28.0	1.00	3.00	3.00	2.71%
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	28.00		110.50	99.55%

Data Collection Crew	Office Data Work
Measurement made by: <u>Farlow, R</u>	Data Inputted by / Date: <u>Farlow, R</u>
Notetaker/Recorder: <u>Butler, R</u>	Data Input Checked by / Date: <u>Butler, R</u>
Other:	

Note 1: WIDTH (ft) = sum of the width column
 Note 2: AREA (sq.ft.) = sum of the area column
 Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
 Note 4: Width of element
 Note 5: Area=Width*Depth for element
 Note 6: Percent area = element area/total area x 100%
 Note 7: Percent area should be less than 10% as per USGS standard.
 Note 8: Blank fields are cleared from all calculations.
 Note 9: The cross sections are taken at areas representative of the stream.

Cross Section Chart

DEPTH (FT)

Distance from initial point (ft)

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

STREAM CROSS-SECTION SPREADSHEET					
Site Number: <u>N/A</u>		Subsegment: <u>120301</u>	Waterbody: <u>Bayou Terrebonne</u>		
Site Description: <u>Dye run 1 and 2 Top/upstream of Highland Dr. Bridge</u>					
Type of Equipment: <input checked="" type="checkbox"/> Fathometer <input type="checkbox"/> Hydrotac <input checked="" type="checkbox"/> Manual					
Initial Bank: <input checked="" type="checkbox"/> RDB <input type="checkbox"/> LDB					
Tapedown: <u>7.04</u>					
Guage Height:					
Date: <u>8/28/2003</u>					
Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	0.0	0.50	3.00	1.50	
2	1.0	1.00	3.00	3.00	5.57%
3	2.0	1.00	3.90	3.90	7.24%
4	3.0	1.00	4.00	4.00	7.43%
5	4.0	1.00	4.50	4.50	8.36%
6	5.0	1.00	5.10	5.10	9.47%
7	6.0	1.00	4.40	4.40	8.17%
8	7.0	1.00	4.50	4.50	8.36%
9	8.0	1.00	4.80	4.80	8.91%
10	9.0	1.00	4.90	4.90	9.10%
11	10.0	1.00	4.00	4.00	7.43%
12	11.0	1.00	3.90	3.90	7.24%
13	12.0	1.00	3.70	3.70	6.87%
14	13.0	0.50	3.30	1.65	3.06%
15					
16					
17					
18					
19					
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21					
22					
23					
24					
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26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	13.00		53.85	97.21%

Data Collection Crew	Office Data Work
Measurement made by: <u>Farlow, R</u>	Data Inputed by / Date: <u>Farlow, R</u>
Notetaker/Recorder: <u>Butler, R</u>	Data Input Checked by / Date: <u>Butler, R</u>
Other:	

Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column
Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
Note 4: Width of element
Note 5: Area=Width*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area should be less than 10% as per USGS standard.
Note 8: Blank fields are cleared from all calculations.
Note 9: The cross sections are taken at areas representative of the stream.

Cross Section Chart

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

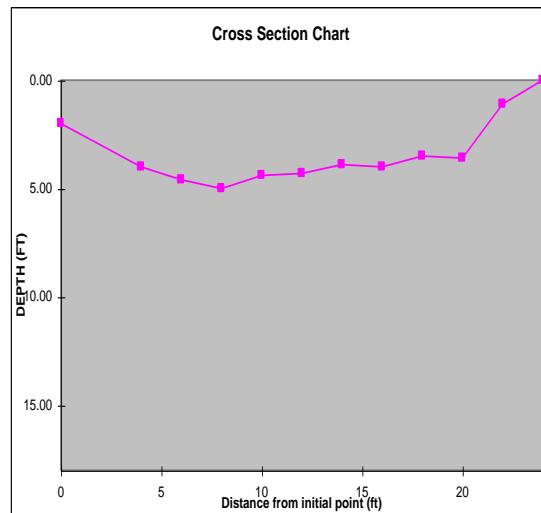
STREAM CROSS-SECTION SPREADSHEETSite Number: N/A Subsegment: 120301 Waterbody: Bayou TerrebonneSite Description: Dye Run 1 Bottom/downstream of Highland Dr. BridgeType of Equipment: Fathometer Hydrotac ManualInitial Bank: RDB LDBTapedown: 7.04

Guage Height:

Date: 8/28/2003

WIDTH ¹ (ft):	24.00
AREA ² (ft ²):	84.80
AVG. DEPTH ³ (ft):	3.53

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	0.0	2.00	2.00	4.00	
2	4.0	3.00	4.00	12.00	14.15%
3	6.0	2.00	4.60	9.20	10.85%
4	8.0	2.00	5.00	10.00	11.79%
5	10.0	2.00	4.40	8.80	10.38%
6	12.0	2.00	4.30	8.60	10.14%
7	14.0	2.00	3.90	7.80	9.20%
8	16.0	2.00	4.00	8.00	9.43%
9	18.0	2.00	3.50	7.00	8.25%
10	20.0	2.00	3.60	7.20	8.49%
11	22.0	2.00	1.10	2.20	2.59%
12	24.0	1.00	0.00	0.00	0.00%
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
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37					
38					
39					
40					
	Total	24.00		84.80	95.28%

**Data Collection Crew**Measurement made by: Farlow, RNotetaker/Recorder: Butler, R

Other:

Office Data WorkData Inputed by / Date: Farlow, RData Input Checked by / Date: Butler, R

Note 1: WIDTH (ft) = sum of the width column

Note 2: AREA (sq.ft.) = sum of the area column

Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)

Note 4: Width of element

Note 5: Area=Width*Depth for element

Note 6: Percent area = element area/total area x 100%

Note 7: Percent area should be less than 10% as per USGS standard.

Note 8: Blank fields are cleared from all calculations.

Note 9: The cross sections are taken at areas representative of the stream.

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

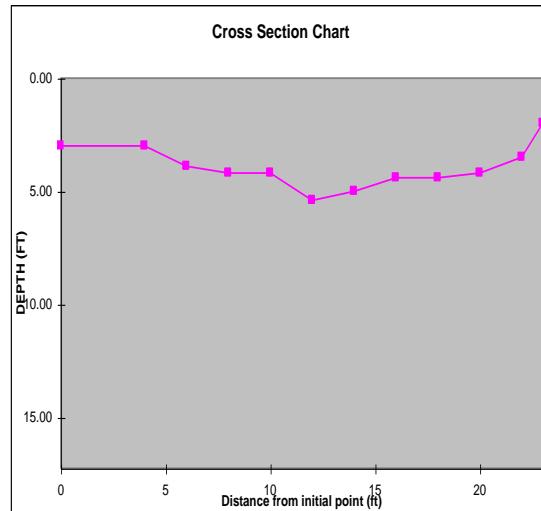
STREAM CROSS-SECTION SPREADSHEETSite Number: N/A Subsegment: 120301 Waterbody: Bayou TerrebonneSite Description: Dye Run 2 Bottom/upstream of BT-10Type of Equipment: Fathometer Hydrotac ManualInitial Bank: RDB LDBTapedown: 7.04

Guage Height:

Date: 8/28/2003

WIDTH ¹ (ft):	23.00
AREA ² (ft ²):	92.65
AVG. DEPTH ³ (ft):	4.03

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	0.0	2.00	3.00	6.00	
2	4.0	3.00	3.00	9.00	9.71%
3	6.0	2.00	3.90	7.80	8.42%
4	8.0	2.00	4.20	8.40	9.07%
5	10.0	2.00	4.20	8.40	9.07%
6	12.0	2.00	5.40	10.80	11.66%
7	14.0	2.00	5.00	10.00	10.79%
8	16.0	2.00	4.40	8.80	9.50%
9	18.0	2.00	4.40	8.80	9.50%
10	20.0	2.00	4.20	8.40	9.07%
11	22.0	1.50	3.50	5.25	5.67%
12	23.0	0.50	2.00	1.00	1.08%
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	23.00		92.65	93.52%



Data Collection Crew		Office Data Work	
Measurement made by:	Farlow, R	Data Input by / Date:	Farlow, R
Notetaker/Recorder:	Butler, R	Data Input Checked by / Date:	Butler, R
Other:			

Note 1: WIDTH (ft) = sum of the width column

Note 2: AREA (sq.ft.) = sum of the area column

Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)

Note 4: Width of element

Note 5: Area=Width*Depth for element

Note 6: Percent area = element area/total area x 100%

Note 7: Percent area should be less than 10% as per USGS standard.

Note 8: Blank fields are cleared from all calculations.

Note 9: The cross sections are taken at areas representative of the stream.

APPENDIX H7 – WEATHER DATA

Bayou Terrebonne Weather **Station Data**

Date & Time	Temperature Average °C	Dry Bulb Average °C	Wet Bulb Average °C	Wind Speed Minimum KPH	Wind Speed Average KPH	Wind Speed Maximum KPH	Wind Direction Minimum °	Wind Direction Average °	Wind Direction Maximum °	Barometer Average mm_Hg	Rain mm	Humidity %	Flux Density Minimum W/m²	Flux Density Average W/m²	Flux Density Maximum W/m²
8/5/2003 11:30	28.5	24.6	25.6	5	9.9	16.3	144.2	203.5	203.5	762	0.25	79.6	76.5	96.7	110.5
8/5/2003 11:45	27.8	24.6	25.4	2.7	5.5	8.8	107.2	147	147	762	0	82.6	110.8	259.1	624.6
8/5/2003 12:00	30	23.9	25.6	2.5	5.2	9.6	46.1	108	108	762	0	70	263	538	612.2
8/5/2003 12:15	31	24.4	26.1	4.2	9.6	18.3	112.1	170.9	170.9	763	0	67.71	272.9	570.8	771
8/5/2003 12:30	30	23.6	25.3	5	9	14.2	143.5	201.2	201.2	763	0	68.29	205.8	449.6	738
8/5/2003 12:45	30.6	23	25.1	3.9	8.2	11.9	121.7	191	191	763	0	63.86	542.3	605.1	661.2
8/5/2003 13:00	31.6	22.7	25.2	3.3	8.4	16	104.1	169.5	169.5	763	0	59.47	586.2	589.7	597.1
8/5/2003 13:15	31.8	22.7	25.2	6.2	9.6	14	136.4	178.4	178.4	762	0	58.34	536.9	581.8	599.4
8/5/2003 13:30	32.4	22.9	25.5	3	7.1	12.2	84.7	156.4	156.4	762	0	57.36	542.9	580.9	610.5
8/5/2003 13:45	32.5	22.3	25.2	3.3	8	14.5	68.8	146.4	146.4	762	0	54.99	332.4	481.5	567
8/5/2003 14:00	32.5	22.5	25.3	4.2	8.4	13.4	112	166.8	166.8	762	0	55.46	152.9	438	593
8/5/2003 14:15	32.6	23.1	25.7	5.6	9.6	14	70.9	150.2	150.2	762	0	57.18	244.3	513.5	558.7
8/5/2003 14:30	32.8	23.5	26	4.5	10.7	20.6	99.6	149.4	149.4	762	0	58.32	542	555.4	568.7
8/5/2003	32.6	23.7	26.1	5	9.9	16.3	87.8	154.2	154.2	762	0	59.52	136.7	534.8	565.9

Bayou Terrebonne Weather **Station Data**

Date & Time	Temperature	Dry Bulb	Wet Bulb	Wind Speed	Wind Speed	Wind Speed	Wind Direction	Wind Direction	Wind Direction	Barometer	Rain	Humidity	Flux Density	Flux Density	Flux Density
14:45															
8/5/2003 15:00	32.6	23.7	26.1	5.9	11	16.3	70.9	144.5	144.5	762	0	59.45	120.6	499.3	577.6
8/5/2003 15:15	32.9	23.2	25.8	4.5	9.9	15.7	86	152.2	152.2	762	0	56.76	374.2	532.4	555.7
8/5/2003 15:30	32.9	22.6	25.5	6.2	11.4	17.4	92.4	152	152	762	0	54.83	491.2	508.4	527
8/5/2003 15:45	33.1	22.5	25.4	6.2	9.7	14	127.7	168.5	168.5	762	0	53.81	463.1	480.2	504.9
8/5/2003 16:00	33.1	22.4	25.4	6.5	10.7	15.7	94.2	143	143	762	0	53.45	327.1	469.3	497.1
8/5/2003 16:15	33.1	22.3	25.3	6.2	11.4	16.3	73.4	134.4	134.4	761	0	53.21	325.5	430.7	477.9
8/5/2003 16:30	33	22.5	25.4	5.6	10.9	16.5	99.2	131.9	131.9	761	0	54.28	274	394	456.6
8/5/2003 16:45	33	22.3	25.2	5.6	11.4	18	103.3	149.3	149.3	761	0	53.37	404.3	422.5	440
8/5/2003 17:00	32.8	21.8	24.9	5.6	11.1	16	112.2	152.2	152.2	761	0	52.4	174.3	334.9	401.6
8/5/2003 17:15	32	21.4	24.4	5.6	10.8	15.4	87.6	135.8	135.8	761	0	53.45	154	181.3	277.9
8/5/2003 17:30	31.3	21.4	24.3	5.6	9.8	17.1	95	140.9	140.9	761	0	55.77	133.1	144.6	190.4
8/5/2003 17:45	31	21.8	24.4	5	9	14.8	104.8	141.1	141.1	761	0	58.12	68.06	118.5	233.7
8/5/2003 18:00	30.5	22.5	24.7	3.9	8.3	11.9	101.2	158.4	158.4	761	0	62.27	21.23	37.74	66.96
8/5/2003 18:15	29.9	23.2	25.1	4.2	7.2	12.2	108.9	158.7	158.7	761	0	67.34	7.18	11.87	20.83

Bayou Terrebonne Weather **Station Data**

Date & Time	Temperature	Dry Bulb	Wet Bulb	Wind Speed	Wind Speed	Wind Speed	Wind Direction	Wind Direction	Wind Direction	Barometer	Rain	Humidity	Flux Density	Flux Density	Flux Density
8/5/2003 18:30	29.5	23.4	25.1	3	5.4	9.9	119.8	183.9	183.9	761	0	70	1.495	4.436	7.18
8/5/2003 18:45	29.3	23.6	25.1	2.2	4.9	9.1	165.3	231.8	231.8	761	0	71.3	0	0.354	1.395
8/5/2003 19:00	28.8	24	25.3	3	6	10.2	196.7	275	275	761	0	75.1	0	0	0
8/5/2003 19:15	27	24.4	25.1	1.3	5.5	11.4	244.5	298.5	298.5	761	0	85.6	0	0	0
8/5/2003 19:30	26.2	24.1	24.7	4.8	8.6	14.5	235	290.1	290.1	761	0	88	0	0	0
8/5/2003 19:45	25.3	23.6	24.1	4.2	6.5	11.1	268.2	303.8	303.8	761	0	90	0	0	0
8/5/2003 20:00	25.1	23.5	23.9	4.5	7	9.9	258.9	288.9	288.9	761	0	90.3	0	0	0
8/5/2003 20:15	24.9	23.3	23.7	2.5	5.2	8.8	245.7	285.6	285.6	761	0	90.7	0	0	0
8/5/2003 20:30	24.9	23.5	23.9	1.6	2.4	3.3	0.2	219.1	219.1	761	0.25	91.9	0	0	0
8/5/2003 20:45	24.9	23.7	24	2.7	4	5.6	-1.4	35.9	35.9	761	0	92.6	0	0	0
8/5/2003 21:00	24.7	23.6	23.9	2.2	3.5	5.3	2.1	52.8	52.8	761	0.25	93.4	0	0	0
8/5/2003 21:15	24.7	23.7	24	3	4.3	5.6	1.4	139.1	139.1	761	0.25	93.7	0	0	0
8/5/2003 21:30	24.7	23.7	24	1.9	2.8	5	0.6	94.5	94.5	761	0	94	0	0	0
8/5/2003 21:45	24.7	23.7	24	2.5	3.5	5.6	38.2	61.7	61.7	761	0.25	94.2	0	0	0
8/5/2003	24.7	23.8	24	1.6	3.2	4.8	9.1	45.3	45.3	761	0	94.3	0	0	0

Bayou Terrebonne Weather **Station Data**

Date & Time	Temperature	Dry Bulb	Wet Bulb	Wind Speed	Wind Speed	Wind Speed	Wind Direction	Wind Direction	Wind Direction	Barometer	Rain	Humidity	Flux Density	Flux Density	Flux Density
22:00															
8/5/2003 22:15	24.7	23.8	24	1.9	4.1	6.2	26	76.7	76.7	761	0	94.1	0	0	0
8/5/2003 22:30	24.8	23.7	24	1.9	3.9	5.9	31.4	72.4	72.4	761	0	93.6	0	0	0
8/5/2003 22:45	24.8	23.8	24.1	0	2.3	3.9	6.4	282.5	282.5	761	0	93.8	0	0	0
8/5/2003 23:00	24.9	23.9	24.2	0	0.9	3	93.5	136	136	761	0	94	0	0	0
8/5/2003 23:15	25	24	24.3	0	2	3	17.1	82.9	82.9	761	0	94.3	0	0	0
8/5/2003 23:30	24.8	23.9	24.1	0	0	0	4.5	159.7	159.7	761	0	94.5	0	0	0
8/5/2003 23:45	24.8	23.9	24.1	0	2.3	5	1	291.7	291.7	761	0	94.7	0	0	0
8/6/2003 0:00	24.5	23.6	23.9	0	2.7	4.8	0.6	57	57	761	0	94.9	0	0	0
8/6/2003 0:15	24.5	23.7	23.9	0	0	1.6	13.8	78.2	78.2	761	0	95.2	0	0	0
8/6/2003 0:30	24.5	23.7	23.9	0	0.5	2.2	46.8	64.7	64.7	761	0	95.2	0	0	0
8/6/2003 0:45	24.7	23.9	24.1	0	0	1.3	21.3	131.1	131.1	761	0	95.3	0	0	0
8/6/2003 1:00	24.6	23.9	24.1	0	0	0	266.7	285.4	285.4	761	0	95.3	0	0	0
8/6/2003 1:15	24.6	23.8	24	0	1	2.5	306.3	317.3	317.3	761	0	95.3	0	0	0
8/6/2003 1:30	24.5	23.7	23.9	1.6	2.2	2.7	313.7	330.1	330.1	761	0	95.3	0	0	0

Bayou Terrebonne Weather **Station Data**

Date & Time	Temperature	Dry Bulb	Wet Bulb	Wind Speed	Wind Speed	Wind Speed	Wind Direction	Wind Direction	Wind Direction	Barometer	Rain	Humidity	Flux Density	Flux Density	Flux Density
8/6/2003 1:45	24.3	23.5	23.7	0	1.7	3.6	0.2	252.5	252.5	761	0	95.3	0	0	0
8/6/2003 2:00	24.3	23.5	23.7	0	0	0	8.7	249.8	249.8	761	0	95.4	0	0	0
8/6/2003 2:15	24.2	23.4	23.6	0	0.4	2.5	30.4	42.6	42.6	761	0	95.4	0	0	0
8/6/2003 2:30	24.1	23.4	23.6	0	0	0	0.4	142.1	142.1	761	0	95.5	0	0	0
8/6/2003 2:45	24.2	23.4	23.6	0	0	0	26.8	192.4	192.4	761	0	95.6	0	0	0
8/6/2003 3:00	24.1	23.3	23.5	0	0	0	28.1	44.8	44.8	761	0	95.6	0	0	0
8/6/2003 3:15	24.1	23.4	23.6	0	0.7	2.5	39.2	61.4	61.4	761	0	95.7	0	0	0
8/6/2003 3:30	24.2	23.5	23.7	0	0	0	40.1	68.8	68.8	761	0	95.8	0	0	0
8/6/2003 3:45	24.1	23.4	23.6	0	0.9	2.5	40	45	45	761	0	95.8	0	0	0
8/6/2003 4:00	24.3	23.6	23.7	0	0	0	47.3	52	52	761	0	95.8	0	0	0
8/6/2003 4:15	24.4	23.7	23.9	0	0	0	37	73.7	73.7	761	0	95.8	0	0	0
8/6/2003 4:30	24.7	24	24.2	0	0	0	67.7	232.9	232.9	761	0	95.9	0	0	0
8/6/2003 4:45	24.8	24.1	24.3	0	0	0	0.2	172.8	172.8	761	0	95.8	0	0	0
8/6/2003 5:00	24.7	23.9	24.1	0	1.8	3.6	2.7	134.4	134.4	761	0	95.6	0	0	0
8/6/2003	24.7	24	24.2	0	0.4	3.3	34.9	204.5	204.5	761	0	95.7	0	0	0

Bayou Terrebonne Weather **Station Data**

Date & Time	Temperature	Dry Bulb	Wet Bulb	Wind Speed	Wind Speed	Wind Speed	Wind Direction	Wind Direction	Wind Direction	Barometer	Rain	Humidity	Flux Density	Flux Density	Flux Density
5:15															
8/6/2003 5:30	24.9	24.2	24.4	0	0.7	3.3	5.2	224.6	224.6	761	0	95.7	0	0	0
8/6/2003 5:45	24.9	24.2	24.4	0	0.8	2.7	1.6	256.8	256.8	761	0	95.5	0	0	0
8/6/2003 6:00	24.9	24.2	24.4	0	1.3	2.5	0.2	195.5	195.5	761	0	95.4	0	0	0
8/6/2003 6:15	24.9	24.2	24.4	0	0.3	1.9	0.8	119	119	762	0	95.4	0	0	0
8/6/2003 6:30	25	24.2	24.4	0	0.4	2.7	0.2	113.6	113.6	762	0	95.4	0	0	0
8/6/2003 6:45	25	24.2	24.4	0	0.3	2.5	0.4	116.9	116.9	762	0	95.4	0	0.707	3.192
8/6/2003 7:00	25	24.3	24.5	0	0	0	19.4	131.6	131.6	762	0	95.4	3.292	6.951	9.97
8/6/2003 7:15	25.2	24.4	24.6	0	0.4	2.5	2.5	274	274	762	0	95.4	9.97	12.26	14.66
8/6/2003 7:30	25.4	24.6	24.8	0	0.9	2.5	20.9	191.8	191.8	762	0	95.3	14.76	22.14	31.52
8/6/2003 7:45	25.6	24.8	25	0	1.4	3	22.9	92.3	92.3	762	0	95.2	31.72	36.19	40.09
8/6/2003 8:00	25.9	25	25.2	0	2.3	3.9	11.4	32.4	32.4	762	0	94.6	40.29	56.48	70.2
8/6/2003 8:15	26.5	25.4	25.7	0	1.1	3.3	31.4	58	58	762	0	93.3	70.5	83.3	90
8/6/2003 8:30	27.1	25.5	25.9	2.2	3.3	5.6	49.8	93.6	93.6	762	0	91	70.1	77.1	88.1
8/6/2003 8:45	27.4	25.6	26.1	0	3.2	6.5	30.1	77.1	77.1	762	0	89.7	59.73	114.6	208.6

Bayou Terrebonne Weather **Station Data**

Date & Time	Temperature	Dry Bulb	Wet Bulb	Wind Speed	Wind Speed	Wind Speed	Wind Direction	Wind Direction	Wind Direction	Barometer	Rain	Humidity	Flux Density	Flux Density	Flux Density
8/6/2003 9:00	29.1	25.4	26.3	0	3.6	7.3	57.4	141	141	762	0	80.4	126.6	211.6	348.8
8/6/2003 9:15	29.8	25.5	26.6	3.6	6.5	9.3	102.8	152	152	762	0	77.6	159.7	302	366.9
8/6/2003 9:30	30	25.3	26.5	3.3	8.7	15.7	118.3	162.3	162.3	762	0	75.7	89.9	287.8	380.8
8/6/2003 9:45	30.1	25.3	26.5	5.6	8.7	14	118.5	164.6	164.6	762	0	75.6	132.5	318.3	448.1
8/6/2003 10:00	30	25.3	26.5	5.3	10.2	16.5	117.7	166.8	166.8	762	0	75.6	97.7	362.8	440.8
8/6/2003 10:15	30.5	25.1	26.5	4.8	8.7	16.8	134.7	184	184	762	0	72.8	116.9	413.1	431.7
8/6/2003 10:30	30.6	24.9	26.4	5.3	11.4	18.6	118.6	178.4	178.4	762	0	71.7	431.8	447.3	460.6
8/6/2003 10:45	30.8	24.8	26.4	5.3	11.7	20	124.6	167.1	167.1	762	0	70.3	311.1	481.2	513.8
8/6/2003 11:00	31.4	24.7	26.4	5.3	11.9	18.6	98.1	166.8	166.8	762	0	67.74	281.4	518.6	548
8/6/2003 11:15	31.6	24.7	26.5	5.9	10.5	18.6	114.4	180.2	180.2	762	0	66.72	135.5	481.6	595.8
8/6/2003 11:30	31.7	24.5	26.4	4.8	12.3	20	116.7	164.6	164.6	762	0	65.58	166.8	542.2	703
8/6/2003 11:45	30.3	24.5	26	5.6	13.2	23.7	92.6	173.2	173.2	762	1.27	71.7	120.2	316.3	745
8/6/2003 12:00	27.3	23.7	24.7	4.2	7.1	12.5	159.5	203.9	203.9	762	0	80.6	139.5	199	254.7
8/6/2003 12:15	28.1	23.6	24.9	3.3	7.2	11.7	150.6	183.9	183.9	762	0	76.5	222.8	266.9	761
8/6/2003	28.6	23	24.6	2.5	5.6	9.6	137.3	184.7	184.7	762	0	71.9	208	225.6	245

Bayou Terrebonne Weather **Station Data**

Date & Time	Temperature	Dry Bulb	Wet Bulb	Wind Speed	Wind Speed	Wind Speed	Wind Direction	Wind Direction	Wind Direction	Barometer	Rain	Humidity	Flux Density	Flux Density	Flux Density
12:30															
8/6/2003 12:45	29.1	23.9	25.3	2.2	5.8	10.8	107.4	184.2	184.2	762	0	73.9	207.2	283.8	576.9
8/6/2003 13:00	30.5	25.1	26.5	3	10.8	19.7	101.6	175.3	175.3	762	0	72.9	250.2	509.7	795
8/6/2003 13:15	31.2	25	26.6	5.3	10.7	18.3	105.3	176.1	176.1	761	0	69.37	267.7	575.8	776
8/6/2003 13:30	31.4	24.8	26.5	5.3	12.2	20.9	114.2	174.5	174.5	761	0	68.05	238.4	488	756
8/6/2003 13:45	31.1	24.6	26.3	5	10.7	18.9	114.5	162.2	162.2	761	0	68.46	226.9	291	433.2
8/6/2003 14:00	31	24.6	26.3	6.5	12.8	19.4	120.2	165.9	165.9	761	0	68.64	273.5	346.2	755
8/6/2003 14:15	31.4	25.2	26.8	5.6	12.1	19.4	80.8	163	163	761	0	69.5	285.1	539.1	642.3
8/6/2003 14:30	31.8	25.1	26.8	6.8	12.9	19.4	113.6	152.6	152.6	761	0	67.89	233.9	555	664.2
8/6/2003 14:45	32.1	24.9	26.7	5.6	13	21.7	99.8	157.1	157.1	761	0	65.68	244.9	562.5	626.6
8/6/2003 15:00	32.1	24.1	26.2	7.3	14.1	21.7	96.3	155	155	761	0	62.38	437.3	551.7	602.3
8/6/2003 15:15	32.4	23.6	26	7	12.7	19.4	107.5	155.8	155.8	761	0	60.19	467.8	519	561.7
8/6/2003 15:30	32.3	23.4	25.8	7.3	14.1	26	82.9	144.3	144.3	761	0	59.29	214.3	492.8	528.8
8/6/2003 15:45	32.5	22.8	25.4	7.9	13.5	22.9	105.2	162.5	162.5	761	0	56.6	345	505.1	524
8/6/2003 16:00	32.7	23.2	25.8	5.9	12.3	21.1	105.2	154.4	154.4	761	0	57.6	490.3	514.4	541.4

Bayou Terrebonne Weather **Station Data**

Date & Time	Temperature	Dry Bulb	Wet Bulb	Wind Speed	Wind Speed	Wind Speed	Wind Direction	Wind Direction	Wind Direction	Barometer	Rain	Humidity	Flux Density	Flux Density	Flux Density
8/6/2003 16:15	32.6	23.8	26.1	7.9	12.1	19.7	93.4	160.1	160.1	760	0	59.55	234.3	453.4	551.2
8/6/2003 16:30	32.5	24.1	26.3	6.8	13.5	20.3	110.1	148.7	148.7	760	0	61.35	197.7	444.9	544.1
8/6/2003 16:45	32.6	24.4	26.6	5	11.4	18.9	98.1	153.8	153.8	760	0	62.3	189.5	402.3	489.4
8/6/2003 17:00	32.3	24.1	26.2	7.9	14.1	19.7	103.7	149	149	760	0	61.77	203.8	378.5	427.6
8/6/2003 17:15	32	23.9	26.1	7.3	15	25.5	101.5	149.3	149.3	760	0	62.49	271	306.2	342.2
8/6/2003 17:30	31.8	23.9	26	7.9	14.1	23.4	104.3	158.7	158.7	760	0	62.94	285.2	306.9	320.2
8/6/2003 17:45	31.8	23.6	25.8	6.2	13.7	22.3	96.3	160.3	160.3	760	0	61.87	265	279.5	299.1
8/6/2003 18:00	31.5	23.4	25.6	6.2	13.2	20	118.2	175	175	760	0	62.24	226	242.7	264.5
8/6/2003 18:15	31.2	23.4	25.6	9.1	16.3	24.9	120.3	165.6	165.6	759	0	63.29	181.7	203.5	225.8
8/6/2003 18:30	31	23.4	25.5	7.6	12.8	21.1	114.9	168.8	168.8	759	0	64.15	138.3	158.8	181.4
8/6/2003 18:45	30.7	23.4	25.4	6.8	11.7	19.4	135.5	174.4	174.4	759	0	64.82	102.4	124.8	147
8/6/2003 19:00	30.4	23.5	25.4	5	10.8	16	123.1	167.4	167.4	759	0	66.79	51.42	89.7	104.6
8/6/2003 19:15	29.9	23.6	25.3	5.3	9.4	15.1	130.1	173.3	173.3	759	0	68.97	32.69	46.37	75.6
8/6/2003 19:30	29.6	23.7	25.3	3.3	8	13.4	129.3	166.9	166.9	759	0	70.3	20.33	30.48	50.83
8/6/2003	29.2	23.9	25.3	3.6	6.5	11.7	111.8	153.5	153.5	759	0	73.4	5.781	12.59	20.13

Bayou Terrebonne Weather **Station Data**

Date & Time	Temperature	Dry Bulb	Wet Bulb	Wind Speed	Wind Speed	Wind Speed	Wind Direction	Wind Direction	Wind Direction	Barometer	Rain	Humidity	Flux Density	Flux Density	Flux Density
19:45															
8/6/2003 20:00	28.7	24.1	25.3	4.2	6.7	10.2	109.9	145.8	145.8	759	0	76.5	0	1.821	5.681
8/6/2003 20:15	28.4	24.2	25.3	3.9	6	9.6	83.4	146.4	146.4	759	0	78.1	0	0	0
8/6/2003 20:30	28.1	24.3	25.3	2.7	4.6	8.5	99.1	141.7	141.7	759	0	80	0	0	0
8/6/2003 20:45	27.9	24.4	25.3	0	2.9	7	102	146.4	146.4	759	0	81.1	0	0	0
8/6/2003 21:00	27.6	24.4	25.3	2.7	3.9	5.6	84.7	128.4	128.4	759	0	82.7	0	0	0
8/6/2003 21:15	27.3	24.4	25.2	2.5	4	6.2	104.5	134.9	134.9	760	0	84.3	0	0	0
8/6/2003 21:30	27.1	24.5	25.2	3	4.4	5.9	96.8	133.6	133.6	760	0	85.3	0	0	0
8/6/2003 21:45	27	24.4	25.1	3	4.5	7	99.5	136.7	136.7	760	0	85.7	0	0	0
8/6/2003 22:00	26.9	24.4	25.1	3.6	5.6	7.3	96	126.7	126.7	760	0	86.2	0	0	0
8/6/2003 22:15	26.8	24.4	25	3.6	5.4	7.6	88.4	126	126	760	0	86.6	0	0	0
8/6/2003 22:30	26.6	24.4	25	3.9	5.3	7.3	79.3	112.3	112.3	760	0	87.6	0	0	0
8/6/2003 22:45	26.4	24.5	25	4.2	6.2	9.3	74.1	112.3	112.3	760	0	89.1	0	0	0
8/6/2003 23:00	26.4	24.4	24.9	3.6	5.7	7.9	92.9	125.1	125.1	760	0	88.6	0	0	0
8/6/2003 23:15	26.3	24.3	24.9	3	4.4	7.9	83.2	127.9	127.9	760	0	88.9	0	0	0

Bayou Terrebonne Weather **Station Data**

Date & Time	Temperature	Dry Bulb	Wet Bulb	Wind Speed	Wind Speed	Wind Speed	Wind Direction	Wind Direction	Wind Direction	Barometer	Rain	Humidity	Flux Density	Flux Density	Flux Density
8/6/2003 23:30	26.1	24.3	24.8	2.5	4.3	6.5	100.6	120.3	120.3	760	0	89.7	0	0	0
8/6/2003 23:45	26	24.2	24.7	2.7	5.6	7.9	95.6	117.8	117.8	760	0	89.7	0	0	0
8/7/2003 0:00	26	24.2	24.7	2.2	5.5	9.9	79.3	123.4	123.4	760	0	89.3	0	0	0
8/7/2003 0:15	26.1	24.1	24.7	1.9	3	6.2	119.3	156.8	156.8	759	0	88.8	0	0	0
8/7/2003 0:30	25.9	24.1	24.6	0	1.4	3.3	0.6	93	93	759	0	89.4	0	0	0
8/7/2003 0:45	25.6	24	24.4	0	0	0	15.3	219.4	219.4	759	0	90.6	0	0	0
8/7/2003 1:00	25.5	24	24.4	0	0.3	2.5	60.9	222.7	222.7	759	0	91.3	0	0	0
8/7/2003 1:15	25.4	24	24.4	0	2.3	3.9	55.1	83.7	83.7	760	0	92.3	0	0	0
8/7/2003 1:30	25.3	24.1	24.4	1.6	2.9	4.8	75.6	100.9	100.9	760	0	92.6	0	0	0
8/7/2003 1:45	25.4	24.1	24.4	1.6	2.9	4.5	86.3	111.2	111.2	760	0	92.8	0	0	0
8/7/2003 2:00	25.4	24.1	24.4	2.2	3.1	4.8	101.3	149.3	149.3	760	0	92.6	0	0	0
8/7/2003 2:15	25.4	24.1	24.4	2.5	3.8	6.5	77.6	108.4	108.4	759	0	92.4	0	0	0
8/7/2003 2:30	25.4	24.1	24.4	1.6	3.2	5.3	79.7	105.9	105.9	759	0	92.2	0	0	0
8/7/2003 2:45	25.4	24.1	24.5	0	1.7	3	112.9	168.7	168.7	759	0	92.3	0	0	0
8/7/2003	25.3	24	24.4	0	2.1	4.8	103	160.3	160.3	759	0	92.3	0	0	0

Bayou Terrebonne Weather **Station Data**

Date & Time	Temperature	Dry Bulb	Wet Bulb	Wind Speed	Wind Speed	Wind Speed	Wind Direction	Wind Direction	Wind Direction	Barometer	Rain	Humidity	Flux Density	Flux Density	Flux Density
3:00															
8/7/2003 3:15	25.1	23.9	24.2	2.5	3.2	4.5	87.1	134.8	134.8	759	0	93.2	0	0	0
8/7/2003 3:30	25.1	24.1	24.3	3.9	5.6	8.5	81.5	105.5	105.5	759	0	94	0	0	0
8/7/2003 3:45	25.6	24.4	24.7	4.5	7	10.8	86.1	117.2	117.2	759	0	93.1	0	0	0
8/7/2003 4:00	25.7	24.3	24.6	3	6.1	9.1	85	115.5	115.5	759	0	92	0	0	0
8/7/2003 4:15	25.6	24.3	24.6	2.7	4.4	7.3	92.3	120	120	759	0	92.1	0	0	0
8/7/2003 4:30	25.6	24.3	24.6	1.9	3.7	6.5	97.6	130	130	759	0	92.3	0	0	0
8/7/2003 4:45	25.6	24.3	24.6	0	2.2	4.8	97.2	174.8	174.8	759	0	92	0	0	0
8/7/2003 5:00	25.5	24.2	24.5	0	1.8	3.3	0.2	42.9	42.9	759	0	92.2	0	0	0
8/7/2003 5:15	25.3	24.2	24.5	1.3	2.9	4.2	20.8	70.4	70.4	760	0	93.4	0	0	0
8/7/2003 5:30	25.3	24.3	24.5	1.9	3.3	4.5	103.2	113.5	113.5	760	0	93.9	0	0	0
8/7/2003 5:45	25.4	24.3	24.6	3.3	4.6	6.5	78.2	114.5	114.5	760	0	93.9	0	0	0
8/7/2003 6:00	25.5	24.4	24.7	4.5	6.5	9.1	84.4	121.6	121.6	760	0	93.4	0	0	0
8/7/2003 6:15	25.6	24.3	24.7	1.9	5	8.8	83.6	145.9	145.9	759	0	92.4	0	0	0
8/7/2003 6:30	25.6	24.3	24.6	2.2	3.7	5.6	116.6	181.5	181.5	759	0	92.6	0	0	0

Bayou Terrebonne Weather **Station Data**

Date & Time	Temperature	Dry Bulb	Wet Bulb	Wind Speed	Wind Speed	Wind Speed	Wind Direction	Wind Direction	Wind Direction	Barometer	Rain	Humidity	Flux Density	Flux Density	Flux Density
8/7/2003 6:45	25.8	24.5	24.8	0	2.9	5.6	85.7	181.2	181.2	759	0	92.8	0	4.125	16.65
8/7/2003 7:00	26	24.7	25	0	3.6	6.2	25.2	157.7	157.7	759	0	92.3	16.85	33.57	42.68
8/7/2003 7:15	26.4	24.9	25.2	1.6	4.5	7.9	199.6	259.8	259.8	760	0	91.5	20.34	27.83	38.29
8/7/2003 7:30	26.7	24.9	25.3	2.7	4.7	7.3	173	233.5	233.5	760	0	89.4	7.18	12.29	27.92
8/7/2003 7:45	26.5	24.9	25.3	2.7	4.7	7	242.2	285.7	285.7	760	1.27	91.1	0	2.096	8.08
8/7/2003 8:00	26.1	24.9	25.2	1.6	4.2	6.2	219.3	309.6	309.6	760	0	92.9	4.387	6.438	9.57
8/7/2003 8:15	26	25	25.2	1.3	4.7	7.3	89.8	128.3	128.3	760	0	93.7	9.77	14.17	19.44
8/7/2003 8:30	26.1	25	25.3	4.5	7.2	10.2	121	162.8	162.8	760	0.25	93.9	19.54	28.26	38.89
8/7/2003 8:45	26.3	25.2	25.5	4.8	7.2	10.2	111.3	152.8	152.8	760	0	93.3	39.29	52.25	66.11
8/7/2003 9:00	26.7	25.4	25.7	4.8	7.2	13.1	112.5	160.5	160.5	760	0	92.4	66.61	83.2	97.4
8/7/2003 9:15	27	25.1	25.6	5.6	10.1	18.3	112.7	158.6	158.6	760	0	89.5	97.7	109.9	121.2
8/7/2003 9:30	27.1	24.6	25.3	4.5	10.6	17.1	109	170.8	170.8	760	0	86.4	121.6	132.9	145.2
8/7/2003 9:45	27.3	24.9	25.5	4.2	8.5	13.4	69.8	171.6	171.6	760	0	87	145.4	160.3	180.8
8/7/2003 10:00	27.7	25.1	25.8	5.6	9.9	18.3	125.7	167.9	167.9	760	0	85.4	181.6	212.7	233.5

APPENDIX H8 – RECONNAISSANCE SURVEY PICTURES

BAYOU TERREBONNE RECONNAISANCE SURVEY
Bayou Terrebonne Recon Pictures
May 15, 2003
Jamie Phillippe, Dick Duerr, Chuck Berger, Shane Caldwell, Chris Nichols

	
<p>Bayou Terrebonne at confluence with Bayou Lafourche At LA 1 intersection with Canal Street</p>	<p>Bayou Terrebonne at the Railroad Tracks – drainage area boundary</p>
	
<p>Bayou Terrebonne at the Railroad Tracks – drainage area boundary</p>	<p>Bayou Terrebonne at Callumet St. – looking upstream</p>

	
<p>Bayou Terrebonne at Callumet St. – looking downstream</p>	<p>Storm drain and outfall into Bayou Terrebonne downstream of Callumet St.</p>
	
<p>Pipe inlet downstream of electrical pump draining Devil's Swamp into Bayou Terrebonne</p>	<p>Downstream of Pump Station draining Devil's Swamp</p>

	 <p>56/15/2003</p>
<p>Pump Station draining Devil's Swamp</p>	<p>Bayou Terrebonne at Louisiana Street Bridge near Robichaux Ford - looking at the downstream side of the culvert</p>
	
<p>Bayou Terrebonne at Louisiana Street Bridge near Robichaux Ford - looking downstream</p>	<p>Bayou Terrebonne at Louisiana Street Bridge near Robichaux Ford - looking upstream</p>





Andrew Price Alternative School on the east side of Bayou Terrebonne



Bayou Terrebonne at Recreation Bridge south of Harmony Street - looking downstream



Bayou Terrebonne at Recreation Bridge south of Harmony Street - looking upstream



Bayou Terrebonne at Bourgeois Bridge at H.L. Bourgeois High School near North Terrebonne Road - looking upstream at the weir



**Bayou Terrebonne at Bourgeois Bridge at H.L.
Bourgeois High School near North Terrebonne Road -
weir approximately 50 feet upstream of the bridge**



**Bayou Terrebonne at Bourgeois Bridge at H.L.
Bourgeois High School near North Terrebonne
Road - looking downstream**



**Bayou Terrebonne at Darlene St. Bridge – looking
downstream**



**Bayou Terrebonne at weir near Sonic and mall
- looking at the upstream side of the weir**

	
<p>Bayou Terrebonne at weir near Sonic and mall</p>	<p>Bayou Terrebonne at weir just below mall bridge – looking upstream</p>
	
<p>Bayou Terrebonne at weir near Sonic and mall – looking downstream from the top of the weir (tidal)</p>	<p>Bayou Cane at LA 24 (DOTD bridge # 065 040371 2) - looking southwest or upstream (tidal)</p>

	
<p>Bayou Cane at LA 24 (DOTD bridge # 065 040371 2) - looking northeast at confluence of Bayou Cane and Bayou Terrebonne (tidal)</p>	<p>Bayou Cane at LA 24 (DOTD bridge # 065 040371 2) - looking northeast at confluence of Bayou Cane and Bayou Terrebonne (tidal)</p>
 <p>05-15-2003</p>	 <p>05-15-2003</p>
<p>Unnamed Drainage Canal at Martin Luther King Hwy south of Bayou Cane on the east side of Martin Luther King Hwy</p>	<p>Unnamed Drainage Canal at Martin Luther King Hwy south of Bayou Cane on the west side of Martin Luther King Hwy</p>

	 <p>05/15/2003</p>
<p>Bayou Cane at Martin Luther King Hwy. - looking downstream at the pump station</p>	<p>Bayou Cane at Martin Luther King Hwy. – looking downstream at the pump station (close-up)</p>
 <p>05/15/2003</p>	 <p>05/15/2003</p>
<p>Bayou Cane at Martin Luther King Hwy. - looking at the gator</p>	<p>Bayou Cane at Martin Luther King Hwy. - looking upstream at the confluence of Bayou Cane and a drainage canal</p>

	
<p>Drainage Canal to Bayou Cane at Savanne Road – looking towards Bayou Cane</p>	<p>Canal to Bayou Cane at Savanne Road – looking upstream</p>
	
<p>ICWW at LA 661 - looking west (tidal)</p>	<p>Houma Navigation Canal at LA 661 - looking south (tidal)</p>

 A photograph showing a wide canal or bayou with industrial buildings and equipment along the banks. A small boat is visible in the water. The date 05/15/2003 is printed in yellow at the bottom right of the image.	 A photograph of a narrow waterway with trees and buildings on both sides. A bridge is visible in the distance. The date 05/15/2003 is printed in yellow at the bottom right of the image.
Bayou La Carpe at LA 661 - looking south (tidal)	ICWW at LA 24 - looking east (tidal)
 A photograph of a narrow waterway with buildings and trees on the banks. The water is calm. The date 05/15/2003 is printed in yellow at the bottom right of the image.	 A photograph of a narrow waterway with buildings and trees on the banks. A bridge is visible in the background. The date 05/15/2003 is printed in yellow at the bottom right of the image.
Bayou Terrebonne at Barrow St. – looking upstream	Bayou Terrebonne at Barrow St. – looking toward ICWW

 05/15/2003	
<p>Bayou Terrebonne at Gabasse St. bridge in Houma (bridge # 065 91 0005 03) – looking downstream (tidal)</p>	<p>Bayou Terrebonne at Gabasse St. bridge in Houma (bridge # 065 91 0005 03) – looking upstream (tidal)</p>
	 05/15/2003
<p>St. Louis Canal at New Orleans Blvd. – looking upstream</p>	<p>St. Louis Canal at New Orleans Blvd. (LA 90) – towards the side channel and the pumping station</p>



St. Louis Canal at New Orleans Blvd. (LA90) – looking downstream towards the pumping station



St. Louis Canal at Park Ave. near confluence with Bayou Terrebonne and Morrison Ave. – looking at the trash on the upstream side of the bridge



St. Louis Canal at Park Ave. near confluence with Bayou Terrebonne and Morrison Ave. – looking upstream



St. Louis Canal at Park Ave. near confluence with Bayou Terrebonne and Morrison Ave. – looking downstream towards Bayou Terrebonne



Bayou Terrebonne at possible culvert from St. Louis Canal (tidal)



Little Bayou Black at LA 311 and LA 182 near Houma Terrebonne Civic Center – from the north looking downstream along Little Bayou Black (tidal)



Little Bayou Black at LA 311 and LA 182 near Houma Terrebonne Civic Center – from the north looking at the confluence of Little Bayou Black and Bayou Black (tidal)



Confluence of Little Bayou Black and Bayou Black – looking north from Jim Bowie Park (tidal)



Confluence of Little Bayou Black and Bayou Black – looking north from Jim Bowie Park (tidal)



Confluence of Little Bayou Black (upstream to the left and downstream to the right) and Bayou Cane (center) (tidal)



Little Bayou Black Immediately Upstream of Bayou Cane



Rotten willow at the confluence of Bayou Cane and Little Bayou Black

 <p>05/15/2003</p> <p>Bayou Terrebonne at Lafayette Street – looking upstream (tidal)</p>	 <p>05/15/2003</p> <p>Bayou Terrebonne at Lafayette Street – looking downstream (tidal)</p>
 <p>05/15/2003</p> <p>Bayou Terrebonne at Lafayette Street – turtle</p>	 <p>Bayou Terrebonne at Hollywood- looking downstream</p>

	
<p>Bayou Terrebonne at Hollywood- looking upstream</p>	<p>Bayou Terrebonne at Westside near Barker GMC – looking downstream (tidal)</p>
	
<p>Bayou Terrebonne at Westside near Barker GMC – looking upstream (tidal)</p>	

APPENDIX H9 – DAM / WEIR DATA

Bayou Terrebonne Water Surface Elevation Data

<u>Site/Weir</u>	<u>BM (feet)</u>	<u>HI (feet)</u>	<u>Upstream Water Surface Elevation (feet)</u>	<u>Weir (feet)</u>	<u>Downstream Water Surface Elevation (feet)</u>	<u>Head Loss Across The Weir (feet)</u>	<u>Head Loss Across The Weir (meters)</u>
BT-05 / Weir # 1	100.00	101.05	95.62	95.18	94.98	0.64	0.20
BT-05A / Weir # 2	100.00	103.68	92.67	92.49	91.62	1.05	0.32
BT-06 / Weir # 3	100.00	104.52	93.58	93.36	92.35	1.23	0.37

APPENDIX I – HISTORICAL AND AMBIENT DATA

APPENDIX I1 – AMBIENT DATA
APPENDIX I2 – LAND USE

APPENDIX I1 – AMBIENT DATA

Bayou Terrebonne at Houma, Louisiana
LA DEQ Ambient Data for Site 0110

This page last updated on: 05/20/02

DATE	TIME (hours)	WATER DEPTH (meters)	FIELD PH	TEMP. (deg c)	D.O. mg/L	FIELD COND. (umhos)	SECCHI DISK (INCHE S)	SALINITY (ppt)
11/16/04	930		7.8	18.6	6.5	320		
10/12/04	1000		7.3	23.6	2.4	180		
8/24/04	1040		7.7	30.7	4.5	360		
7/27/04	1015		7.2	28.5	2.4	220		
6/29/04	1005		7.3	26.3	3.2	230		
6/2/04	1035		7.33	28.12	3.88	287		
5/10/04	1020		7.5	25.7	4.1	280		
4/19/2004	1005	1	7.5	20.60	7.7	350		
3/9/2004	1050	1	7.5	20.10	2.1	320		
2/3/2004	1015	1	7.6	12.10	9.5	430	14.0	
1/6/2004	1005	1	7.4	15.8	2.7	410	16.0	
11/29/2000	1030	1	6.7	14.41	7.51	686	9	0.4
10/25/2000	1100	1	7.59	23.48	4.8	17900	7	10.3
9/27/2000	1050	1	7.51	25.24	4.5	4870	9	2.6
8/30/2000	1035	1	8.02	30.22	5.71	290	6	0.2
8/2/2000	1040	1	7.46	28.76	6.34	312	8	0.2
6/28/2000	1100	1	7.68	30.33	5.81	292	7	0.2
5/31/2000	1020	1	8.56	29.62	6.71	294	8	0.1
5/3/2000	1025	1	7.89	25.17	4.26	.	11	0.1
4/4/2000	1010	1	7.54	20.79	7.2	446	8	0.2
3/1/2000	930	1	8.02	21.21	5.77	566	8	0.3
2/2/2000	900	1	8.04	10.2	8.33	2380	6	1.3
1/5/2000	955	1	7.93	15.13	6.81	806	7	0.4

APPENDIX I2 – LAND USE

SUBSEGMENT 120301 - LANDUSE SUMMARY		
LANDUSE	ACRES	PERCENT
Wetland Forest Deciduous	9652.59	27.35
Agriculture/Cropland/Grassland	7522.94	21.31
Vegetated Urban	7468.45	21.16
Fresh Marsh	4308.00	12.20
Wetland S/S Deciduous	2667.40	7.56
Water	2418.76	6.85
Non-Vegetated Urban	809.07	2.29
Upland S/S Mixed	182.59	0.52
Upland Forest Deciduous	159.23	0.45
Upland Forest Mixed	106.53	0.30
Upland Barren	3.34	0.01

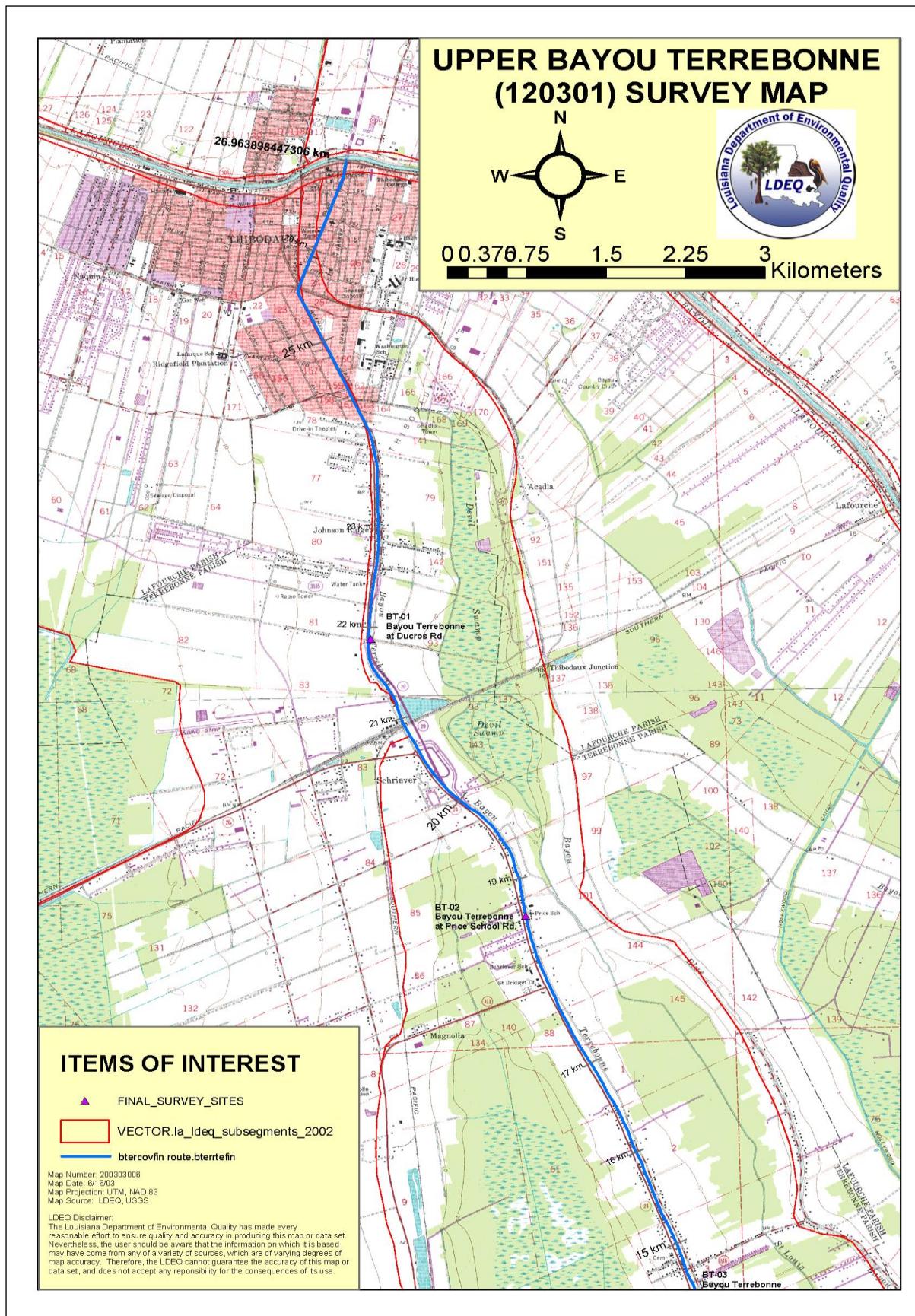
APPENDIX J – MAPS AND DIAGRAMS

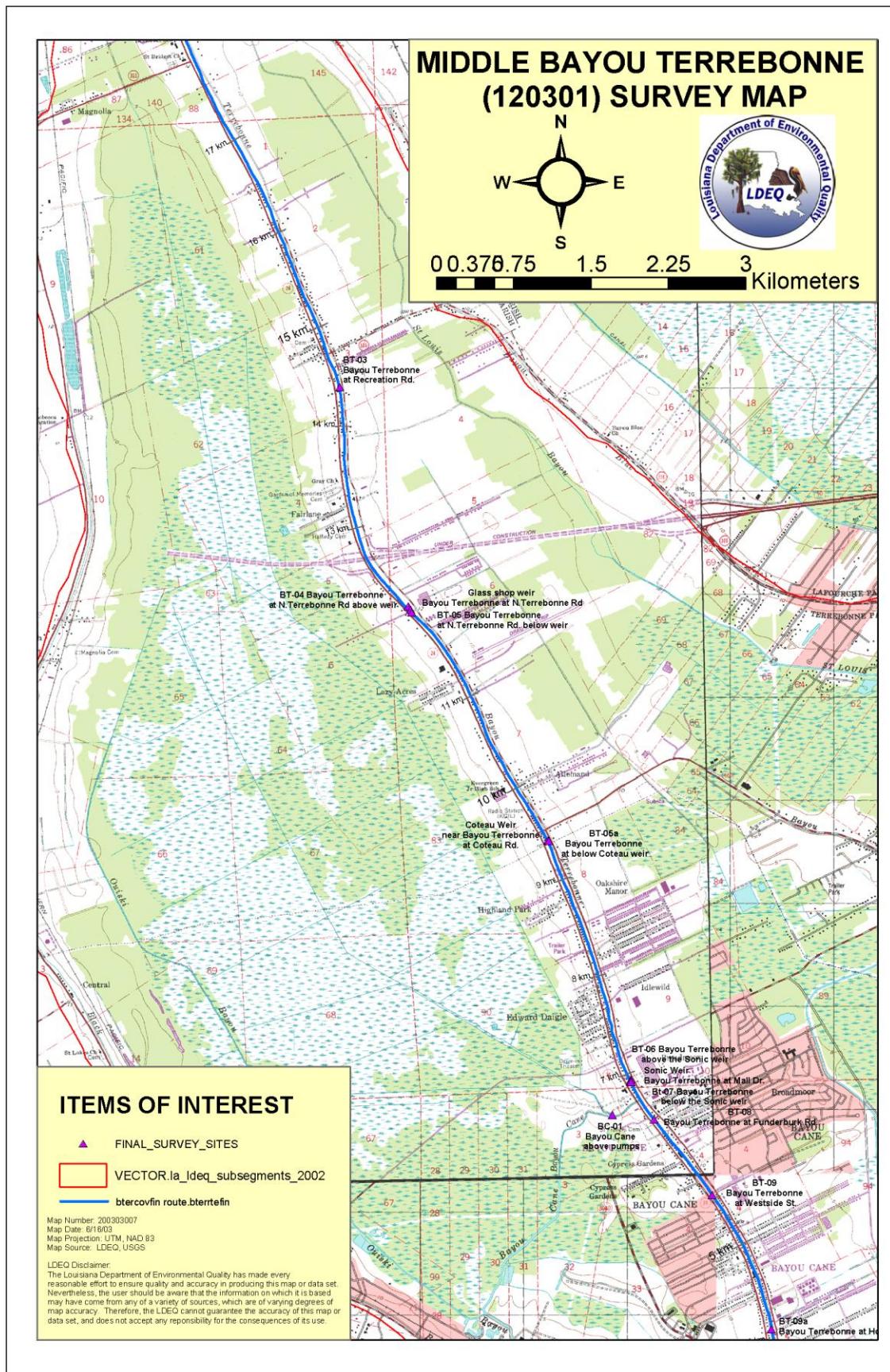
APPENDIX J1 - OVERVIEW MAPS

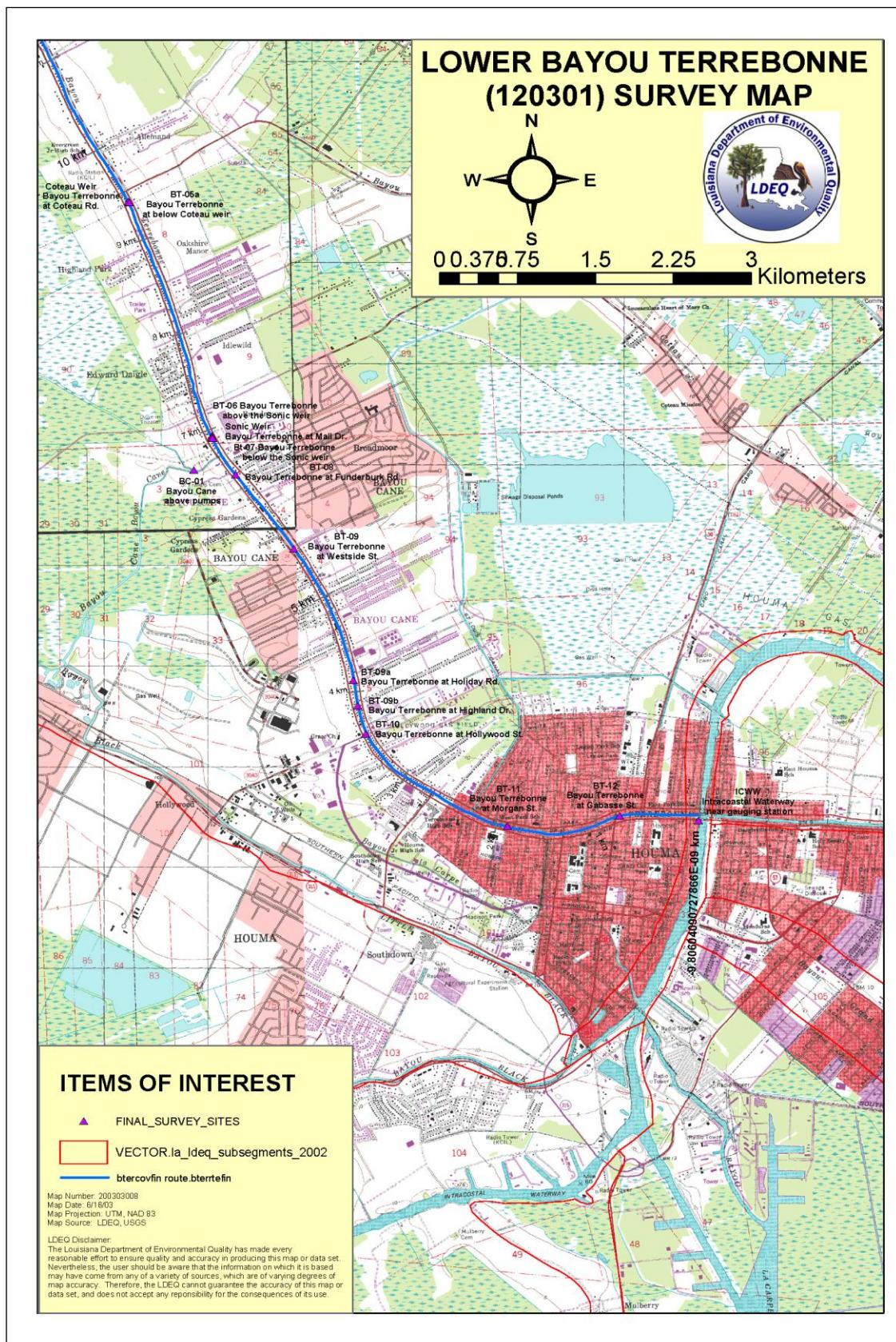
APPENDIX J2 – LANDUSE MAP

APPENDIX J4 – LA PRECIPITATION MAP

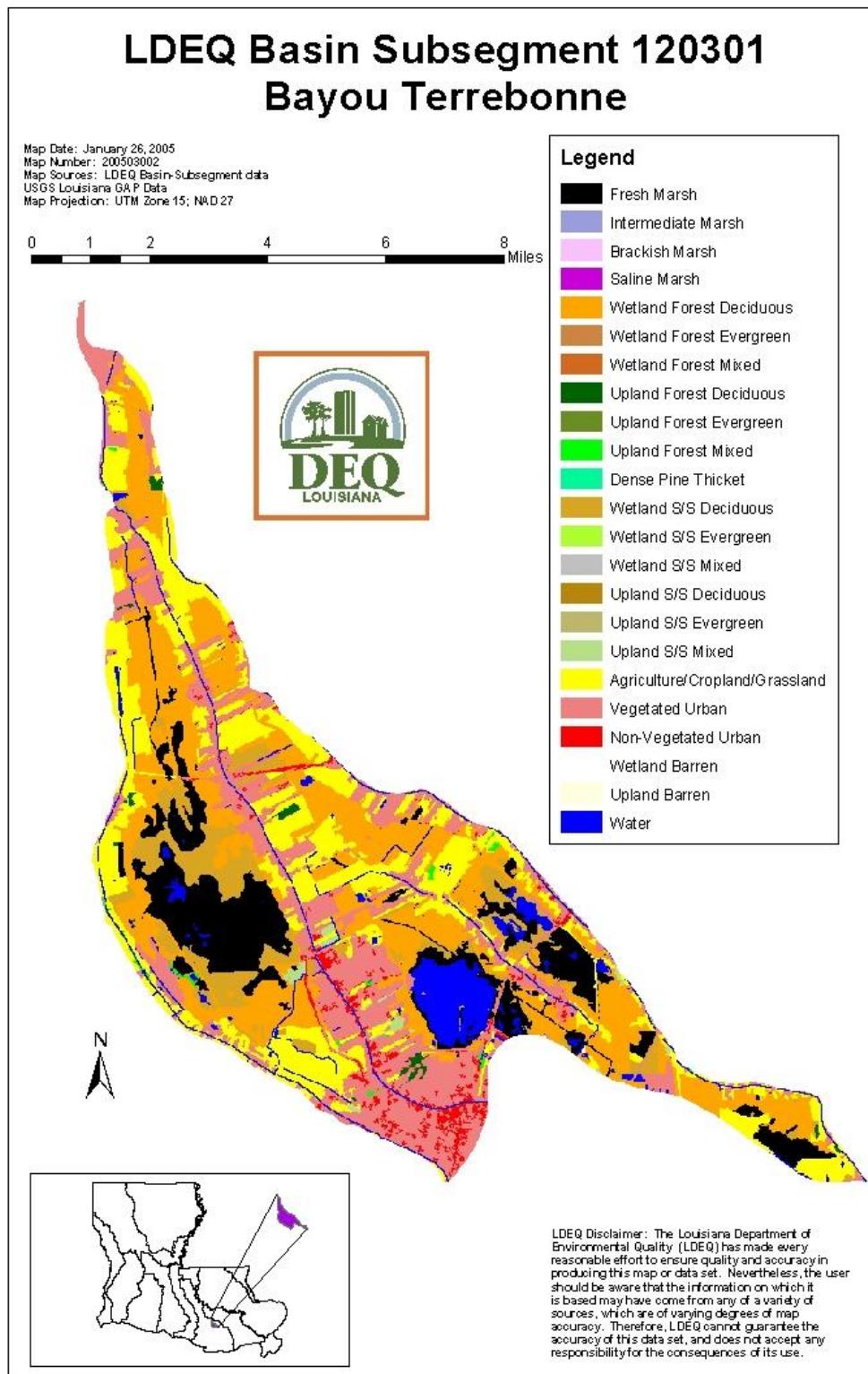
APPENDIX J1 - OVERVIEW MAPS







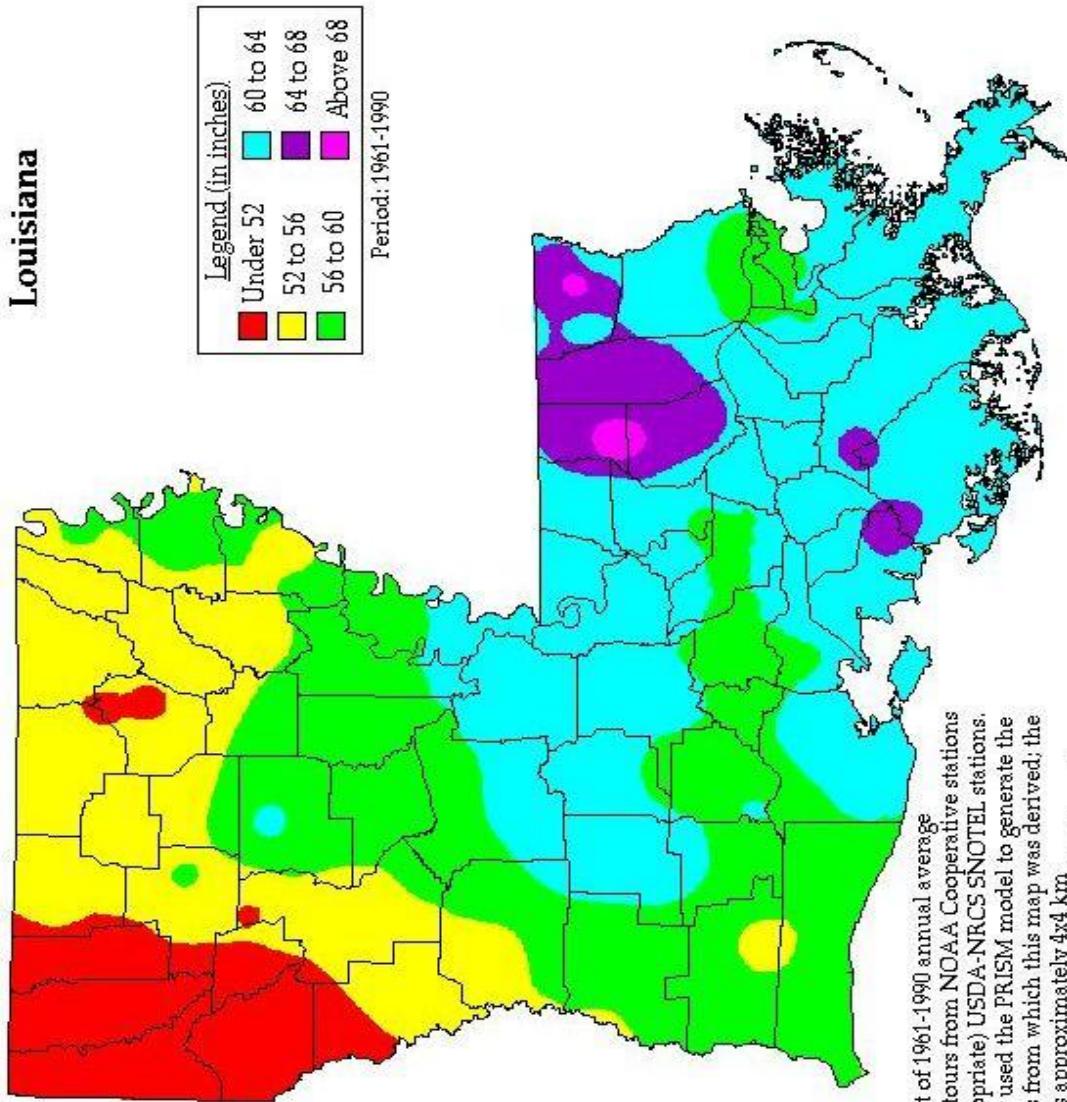
APPENDIX J2 – LANDUSE MAP



APPENDIX J3 – LA PRECIPITATION MAP

Average Annual Precipitation

Louisiana



This map is a plot of 1961-1990 annual average precipitation contours from NOAA Cooperative stations and (where appropriate) USDA-NRCS SNOTEL stations. Christopher Daly used the PRISM model to generate the gridded estimates from which this map was derived; the modeled grid was approximately 4x4 km latitude/longitude, and was resampled to 2x2 km using a Gaussian filter. Mapping was performed by Jerry Weisburg. Funding was provided by USDA-NRCS National Water and Climate Center.

APPENDIX K – SENSITIVITY ANALYSIS

APPENDIX K1 – SENSITIVITY SUMMARY TABLE , GRAPHS, INPUT AND OUTPUT FILES (UPPER TERREBONNE MODEL)

APPENDIX K2 – SENSITIVITY MODEL SUMMARY TABLE, GRAPHS, INPUT AND OUTPUT FILE (LOWER TERREBONNE MODEL)

**APPENDIX K1 – SENSITIVITY SUMMARY TABLE , GRAPHS, INPUT AND
OUTPUT FILE (UPPER TERREBONNE MODEL)**

UPPER TERREBONNE SENSITIVITY MODEL SUMMARY TABLE

SENSITIVITY ANALYSIS SUMMARY						
UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04 HEADWATER TO WEIR #3						
Plot 1 Base Model Minimum DO = 0.07						
Parameter	% Parameter Change	Min D.O.	% D.O. Change	% Parameter Change	Min D.O.	% D.O. Change
Benthal Demand	-30	1.4	1920.2	30	0	-100
Initial Temperature	-2	0.69	900.6	2	0	-100
Stream Reaeration	-30	0	-100	30	1.4	1920.2
CBOD Aerobic Decay Rate	-30	0.08	12.2	30	0.06	-8.7
Non-Point Source CBOD	-30	0.08	10.2	30	0.06	-9.3
Stream Depth	-30	0.08	8.7	30	0.07	-5.1
Stream Velocity	-30	0.07	7.7	30	0.07	-4
CBOD Settling Rate	-30	0.07	-5.5	30	0.07	5.6
Stream Baseflow	-30	0.07	-4.4	30	0.07	4.6
Incremental Inflow	-30	0.07	-4.4	30	0.07	4.6
Incremental CBOD	-30	0.07	4.1	30	0.07	-3
Initial Salinity	-30	0.07	2.3	30	0.07	-2.3
Incremental DO	-30	0.07	-2.1	30	0.07	2.1
CBOD2 Aerobic Decay Rate	-30	0.07	1	30	0.07	-1
Incremental CBOD2	-30	0.07	0.5	30	0.07	-0.5
Non-Point Source BOD2	-30	0.07	0.5	30	0.07	-0.5
NBOD Decay Rate	-30	0.07	0.1	30	0.07	-0.1
CBOD2 Settling Rate	-30	0.07	0	30	0.07	0
Tidal Range	-30	0.07	0	30	0.07	0
Algae/Chlorophyll Ratio	-30	0.07	0	30	0.07	0
NBOD Settling Rate	-30	0.07	0	30	0.07	0
Initial Chorophyll a	-30	0.07	0	30	0.07	0
Incremental Outflow	-30	0.07	0	30	0.07	0
Incremental Temperature	-30	0.07	0	30	0.07	0
Incremental Chlorophyll a	-30	0.07	0	30	0.07	0
Incremental NBOD	-30	0.07	0	30	0.07	0
Headwater Flow	-30	0.07	0	30	0.07	0
Headwater Temperature	-2	0.07	0	2	0.07	0
Headwater DO	-30	0.07	0	30	0.07	0
Headwater CBOD	-30	0.07	0	30	0.07	0
Headwater CBOD2	-30	0.07	0	30	0.07	0
Headwater Chlorophyll a	-30	0.07	0	30	0.07	0
Headwater NBOD	-30	0.07	0	30	0.07	0
Wasteload Flow	-30	0.07	0	30	0.07	0
Wasteload Temperature	-30	0.07	0	30	0.07	0
Wasteload DO	-30	0.07	0	30	0.07	0
Wasteload CBOD	-30	0.07	0	30	0.07	0
Wasteload CBOD2	-30	0.07	0	30	0.07	0
Wasteload Chlorophyll a	-30	0.07	0	30	0.07	0
Wasteload NBOD	-30	0.07	0	30	0.07	0

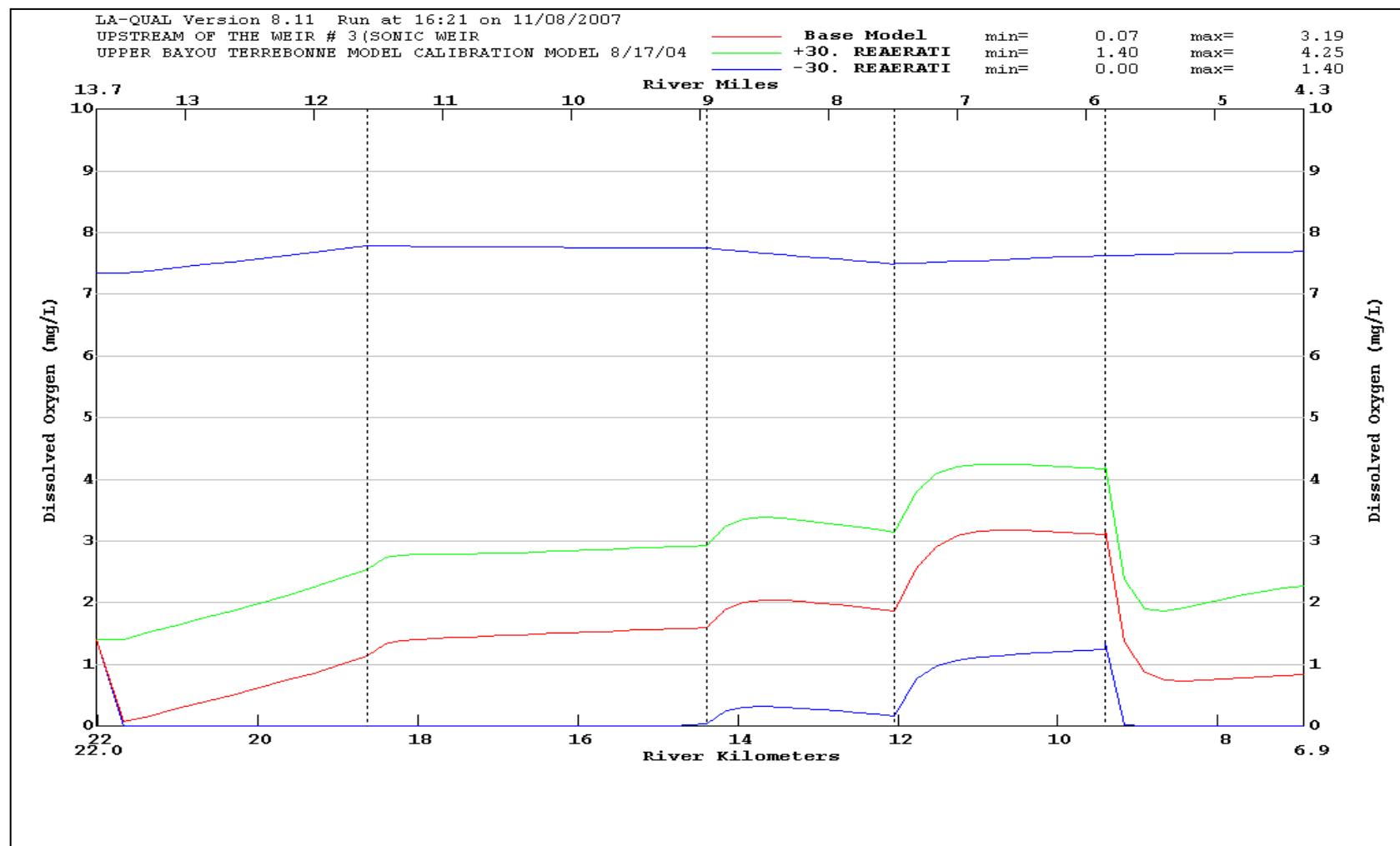
SENSITIVITY ANALYSIS SUMMARY

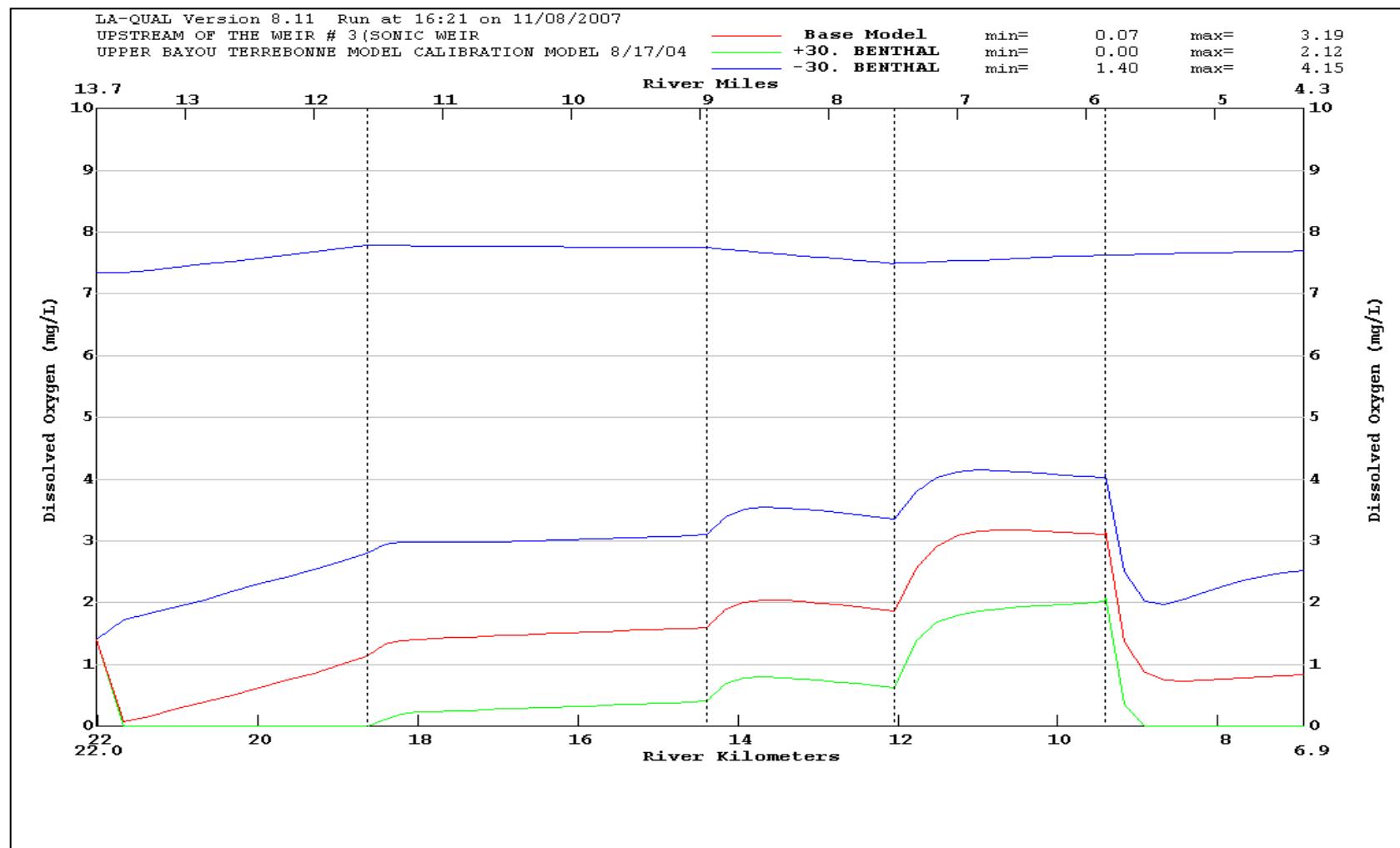
**UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
HEADWATER TO WEIR #3**

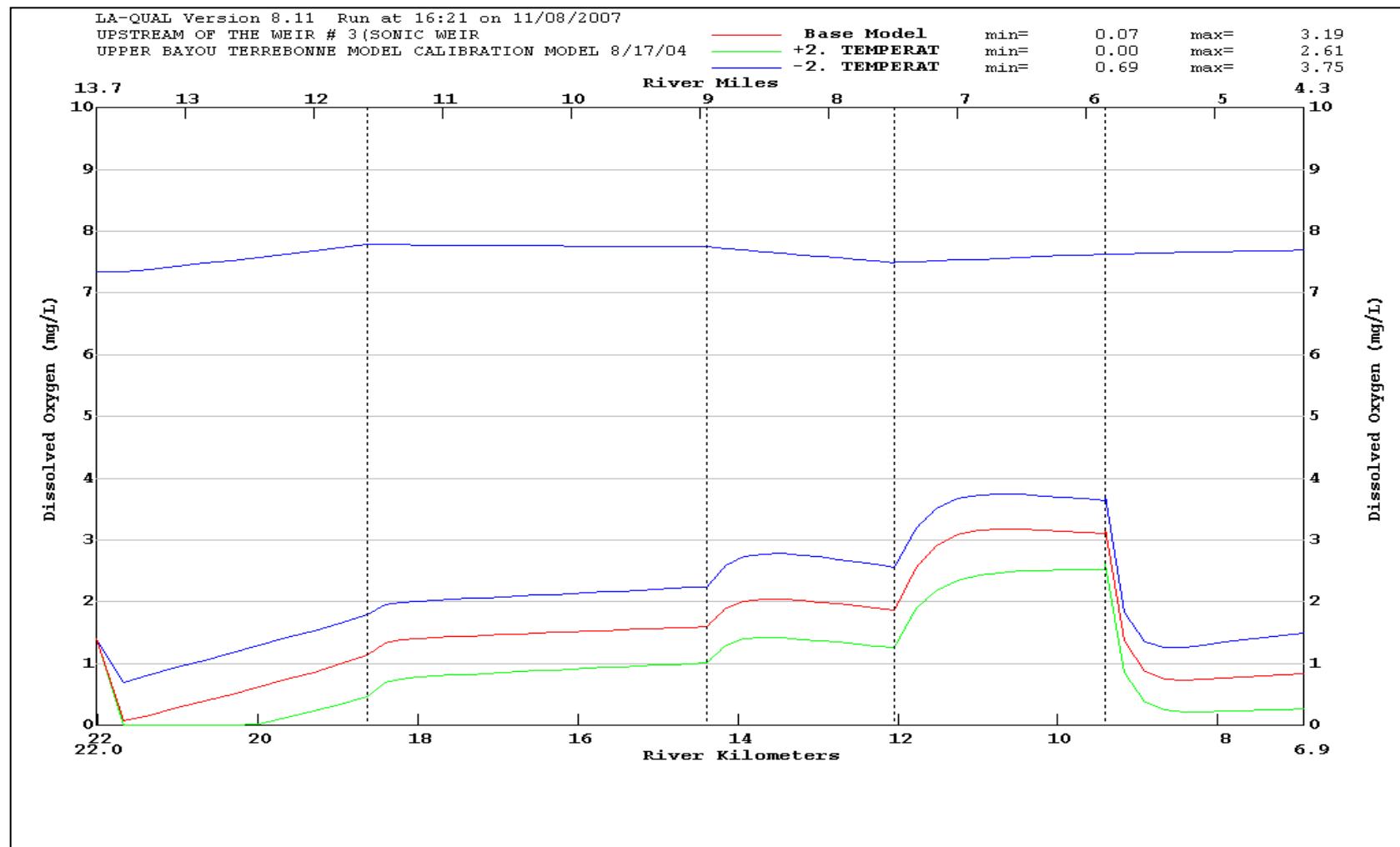
Plot 1 Base Model Minimum DO = 0.07

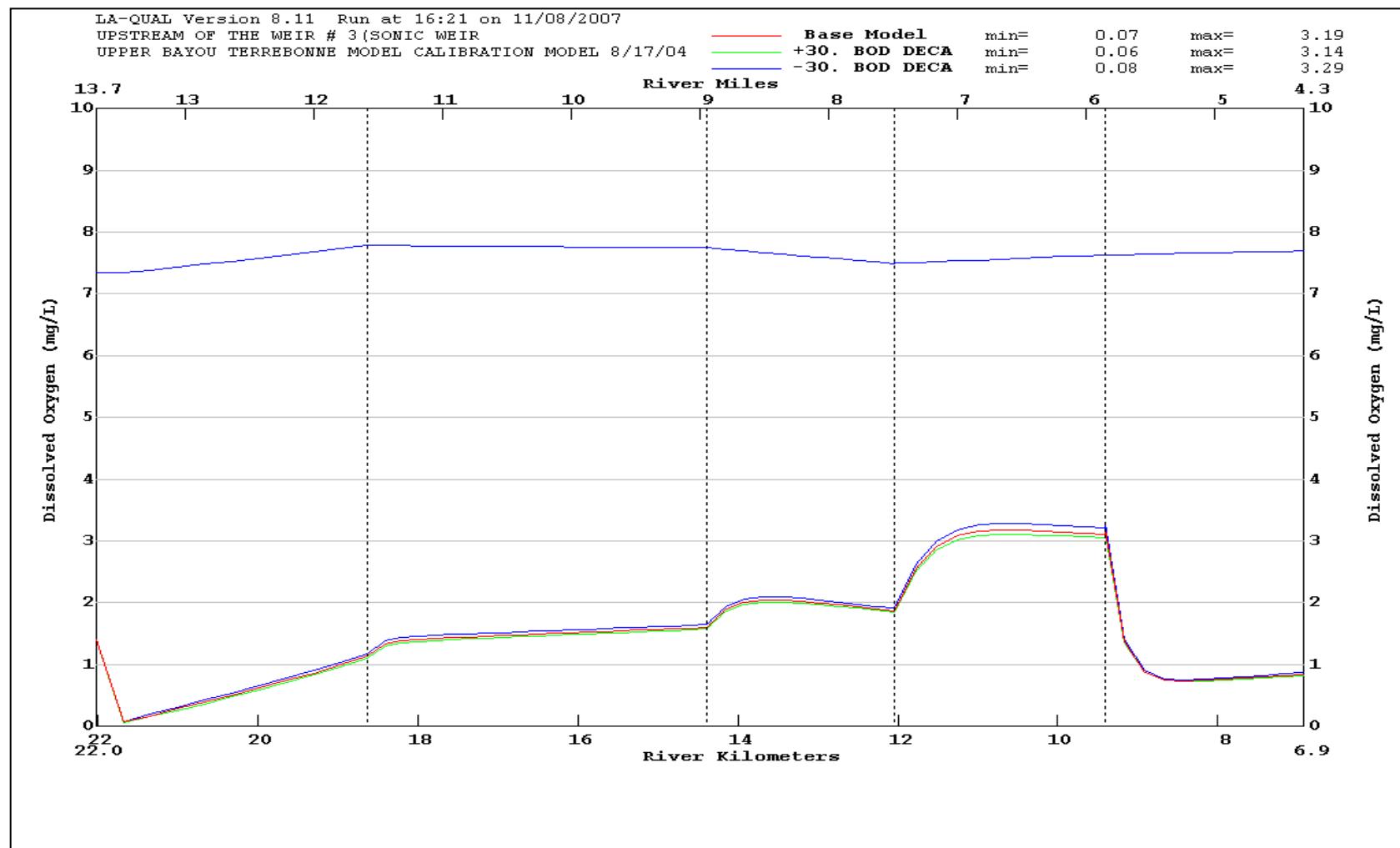
Parameter	% Parameter Change	Min D.O.	% D.O. Change	% Parameter Change	Min D.O.	% D.O. Change
Ocean Exchange Ratio	-30	0.07	0	30	0.07	0
Lower Boundary Temperature	-2	0.07	0	2	0.07	0
Lower Boundary DO	-30	0.07	0	30	0.07	0
Lower Boundary CBOD	-30	0.07	0	30	0.07	0
Lower Boundary CBOD2	-30	0.07	0	30	0.07	0
Lower Boundary Chlorophyll a	-30	0.07	0	30	0.07	0
Lower Boundary NBOD	-30	0.07	0	30	0.07	0
Non-Point Source NBOD	-30	0.07	0	30	0.07	0

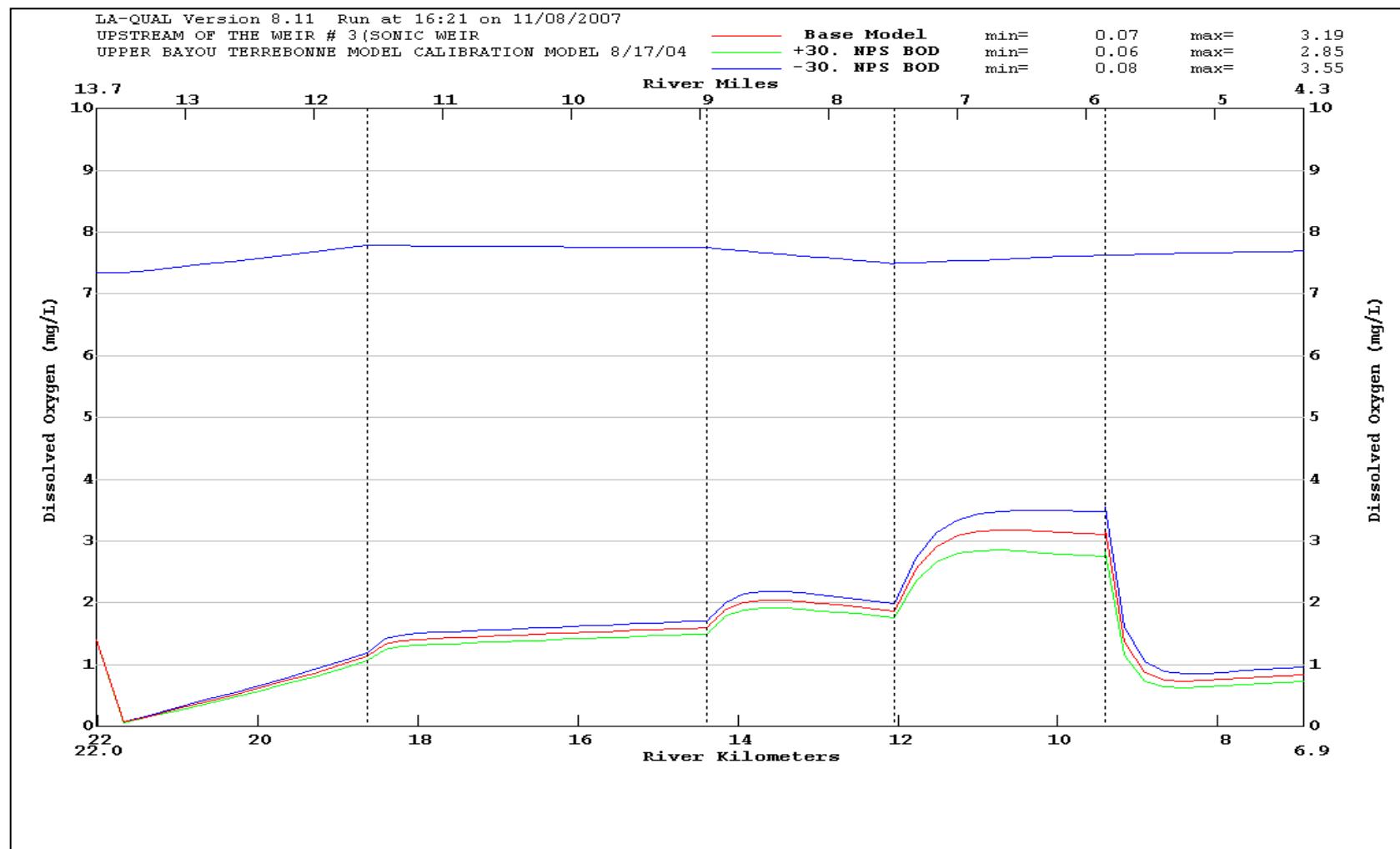
UPPER TERREBONNE SENSITIVITY MODEL GRAPHS

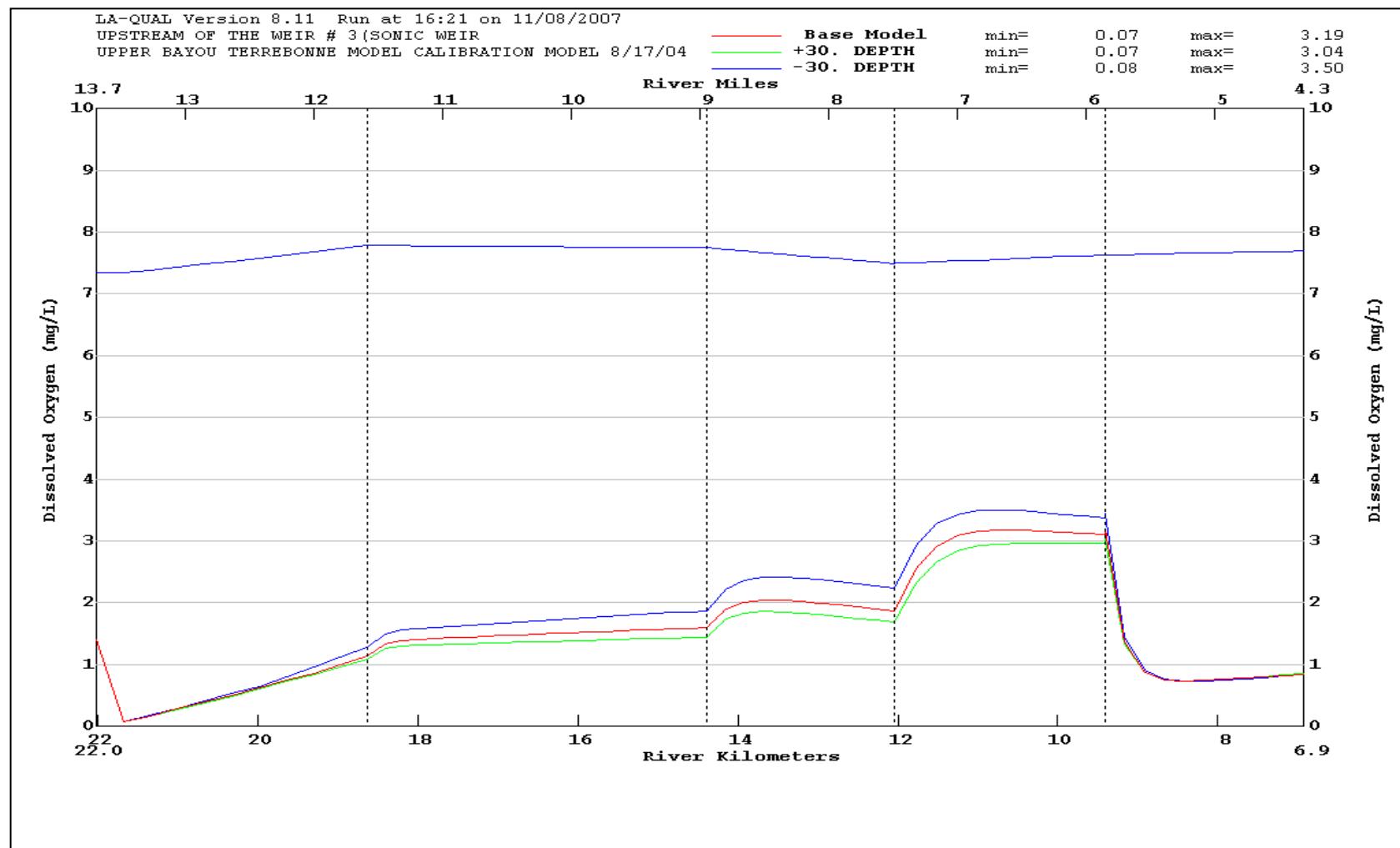












UPPER TERREBONNE SENSITIVITY MODEL INPUT FILE

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

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HYDR-1      3      0      0  17.68      0      0  0.36      0  0.03
HYDR-1      4      0      0  16.46      0      0  0.49      0  0.03
HYDR-1      5      0      0  17.68      0      0  0.95      0  0.03
ENDATA09
! REACH INFO ENTERED 10/31/04; Dispersion values based on value that calibrated
for
!      Reach 5; This worked for a reach between two weirs and should apply to
other
!      reaches; Revised 10/8/2007--> This area not considered to be tidal due
to weirs;
!      set TRANGE=1.0 and calibrated dispersion by calibrating (best fit) to
conservatives
!      by adjusting "a"; reaches 3 and 4 cannot have TRANGE-both are upstream
of a weir
!      ****Used default dipersion option = 1 -->dispersion = "a", i.e.
dispersion = 0****
!00000000111111111222222223333333344444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!      RCH TRANGE      "a"      "b"      "c"      "d"
HYDR-2      1      0.0      0.00      0.830      0      1.00
HYDR-2      2      0.0      0.00      0.830      0      1.00
HYDR-2      3      0.0      0.00      0.830      0      1.00
HYDR-2      4      0.0      0.00      0.830      0      1.00
HYDR-2      5      0.0      0.00      0.830      0      1.00
ENDATA10
! DATA ENTERED 9/19/04
! Initial conditions temp, DO, sal, and chl a revised 10/2/07 to match site
located
! at/near the upstream end of each reach
!000000001111111122222223333333344444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!      TEMP      SAL      DO                      CHL A      MACRO
INITIAL    1      32.05      0.20      1.40      0.00      0.000      0.00      62.90      0.0
INITIAL    2      28.25      0.22      0.24      0.00      0.000      0.00      9.70       0.0
INITIAL    3      28.53      0.22      1.59      0.00      0.000      0.00      8.30       0.0
INITIAL    4      30.43      0.20      5.15      0.00      0.000      0.00      5.80       0.0
INITIAL    5      29.40      0.19      3.25      0.00      0.000      0.00      10.90      0.0
ENDATA11

```

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

```

! Data Entered 9/19/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream
! end of each reach
!000000001111111122222222333333344444444455555556666666677777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      REAERATION           SOD BOD1DEC   SETT CON2SOD ANEARO BOD2DEC   SETT CON2SOD ANEARO
COEF-1    1     15   0.0   0.0    0.0   3.00   0.23   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    2     15   0.0   0.0    0.0   2.80   0.31   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    3     15   0.0   0.0    0.0   2.50   0.27   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    4     15   0.0   0.0    0.0   1.40   0.30   0.05   0.0   0.0   0.04   0.05   0.0   0.0
COEF-1    5     15   0.0   0.0    0.0   2.95   0.25   0.05   0.0   0.0   0.03   0.05   0.0   0.0
ENDATA12
!
! Data Entered 9/19/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream
! end of each reach
!00000000111111112222222233333334444444445555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      NBODDEC NBODSETT
COEF-2    1     0.11  0.025   0.0   0.0   0.0   0.0   0.0
COEF-2    2     0.17  0.025   0.0   0.0   0.0   0.0   0.0
COEF-2    3     0.06  0.025   0.0   0.0   0.0   0.0   0.0
COEF-2    4     0.10  0.025   0.0   0.0   0.0   0.0   0.0
COEF-2    5     0.10  0.025   0.0   0.0   0.0   0.0   0.0
ENDATA13
ENDATA14
ENDATA15
!
! Incremental data input started on 10/2/2007 finito on 10/5/2007; no WQ data needed
! due to outflow conditions
!00000000111111112222222233333334444444445555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      R#    OUTFLOW    INFLOW     TEMP      SAL CONSERVI CONSERV2
INCR-1    1          0.01896   28.25    0.22    17.1    429.8
INCR-1    2          0.02364   28.53    0.22    16.4    430.8
INCR-1    3          0.01310   28.84    0.19    12.8    381.2
INCR-1    4       -0.02098
INCR-1    5       -0.01331
ENDATA16

```

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2007

!000000001111111122222222333333344444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
!
INCR-2 R# DO BOD1 NBOD NH3 NO2 BOD2
INCR-2 1 0.24 4.10 2.68 4.47
INCR-2 2 1.59 3.60 3.04 4.78
INCR-2 3 1.71 3.52 1.27 3.89
INCR-2 4
INCR-2 5
ENDATA17
!0000000011111111222222223333333344444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
!
INCR-3 R# PHOS CHLORA COLI NCM
INCR-3 1 9.7
INCR-3 2 8.3
INCR-3 3 5.6
INCR-3 4
INCR-3 5
ENDATA18
! Data modified 7/8/05; recalibrated 10/8/2007
!0000000011111111222222223333333344444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
!
NONPOINT BOD1 NBOD DO BOD2
NONPOINT 1 18.5 2.2 8.0
NONPOINT 2 41.0 9.3 13.0
NONPOINT 3 22.0 0.0 3.5
NONPOINT 4 54.0 10.0 17.0
NONPOINT 5 24.0 1.5 9.8
ENDATA19
!ALL HEADWATER DATA HAS BEEN INPUT
!0000000011111111222222223333333344444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
!
CL COND FLOW TEMP SAL
HDWTR-1 1 BT01 0 0.00000 32.05 0.2
16.2 452.39
ENDATA20
!0000000011111111222222223333333344444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
!
HDWTR-2 DO BOD1 NBOD BOD2
HDWTR-2 1 1.4 12.13 5.15 0.0 0.0 12.40
ENDATA21
!0000000011111111222222223333333344444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
!
CHL A

HDWTR-3 1 0.0 62.9 0.0 0.0
ENDATA22
ENDATA23
ENDATA24
ENDATA25
ENDATA26
! LBC data entered 9/19/04; revised 10/16/07
LOWER BC TEMPERATURE = 28.90
LOWER BC SALINITY = 0.18
LOWER BC CONSERVATIVE MATERIAL I = 11.7
LOWER BC CONSERVATIVE MATERIAL II = 359.60
LOWER BC DISSOLVED OXYGEN = 0.77
LOWER BC BOD1 = 2.85
LOWER BC BOD2 = 3.44
LOWER BC PHOSPHORUS = 0.00
LOWER BC CHLOROPHYLL A = 11.70
LOWER BC COLIFORM = 0.00
LOWER BC NBOD = 1.71
ENDATA27
! Data modified 7/8/05
!0000000011111111222222223333333344444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
DAM DATA 41 WEIR #1 Glass 1 0.65 0.0 0.2
DAM DATA 51 WEIR #2 Coteau 1 0.65 0.1 0.32
ENDATA28
SENSITIV DEPTH -30 30
SENSITIV BASEFLOW -30 30
SENSITIV REAERATI -30 30
SENSITIV VELOCITY -30 30
SENSITIV BOD DECA -30 30
SENSITIV BOD SETT -30 30
SENSITIV BOD2 DEC -30 30
SENSITIV BOD2 SET -30 30
SENSITIV TRANGE -30 30
SENSITIV ARATIO -30 30
SENSITIV NBOD DEC -30 30
SENSITIV NBOD SET -30 30
SENSITIV BENTHAL -30 30
SENSITIV TEMPERAT -2 2
SENSITIV SALINITY -30 30
SENSITIV CHLOR A -30 30
SENSITIV INC INFL -30 30
SENSITIV INC OUTF -30 30
SENSITIV INC TEMP -30 30
SENSITIV INC DO -30 30
SENSITIV INC BOD -30 30
SENSITIV INC BOD2 -30 30
SENSITIV INC CHLO -30 30
SENSITIV INC NBOD -30 30
!SENSITIV DISPERSI -30 30
SENSITIV HDW FLOW -30 30
SENSITIV HDW TEMP -2 2
SENSITIV HDW DO -30 30
SENSITIV HDW BOD -30 30

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

```
SENSITIV HDW BOD2      -30      30
SENSITIV HDW CHLO      -30      30
SENSITIV HDW NBOD      -30      30
SENSITIV WSL FLOW      -30      30
SENSITIV WSL TEMP      -30      30
SENSITIV WSL DO        -30      30
SENSITIV WSL BOD       -30      30
SENSITIV WSL BOD2      -30      30
SENSITIV WSL CHLO      -30      30
SENSITIV WSL NBOD      -30      30
SENSITIV OXR           -30      30
SENSITIV LBC TEMP      -2       2
SENSITIV LBC DO        -30      30
SENSITIV LBC BOD       -30      30
SENSITIV LBC BOD2      -30      30
SENSITIV LBC CHLO      -30      30
SENSITIV LBC NBOD      -30      30
SENSITIV NPS BOD       -30      30
SENSITIV NPS BOD2      -30      30
SENSITIV NPS NBOD      -30      30
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 5
PLOT RCH 1  2  3  4  5
ENDATA30
OVERLAY 1 UpperBTCalOverlay.txt
ENDATA31
```

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

UPPER TERREBONNE SENSITIVITY MODEL OUTPUT FILE

LA-QUAL Version 8.11

Louisiana Department of Environmental Quality

Input file is C:\AA_DAILY WORKING FOLDER\AA_TRANSFER BTERR DATASET\LAQUAL CAL REVIEW_09182007\Reported Cal Model Rev\Sensitivity\UpBTerrCalSensi5R.txt
Output produced at 13:46 on 10/31/2007

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE CONTROL TITLES

TITLE01 UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
TITLE02 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)
CONTROL YES METRIC UNITS
ENDATA01

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE MODEL OPTION

MODOPT01	NO	TEMPERATURE	
MODOPT02	NO	SALINITY	
MODOPT03	YES	CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MODOPT04	YES	CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN MG/L
MODOPT05	YES	DISSOLVED OXYGEN	
MODOPT06	YES	BOD1	
MODOPT07	YES	BOD2	
MODOPT08	YES	NBOD OXYGEN DEMAND	IN MG/L
MODOPT09	NO	PHOSPHORUS	
MODOPT10	NO	CHLOROPHYLL A	
MODOPT11	NO	MACROPHYTES	
MODOPT12	NO	COLIFORM	
MODOPT13	NO	NONCONSERVATIVE MATERIAL = NBOD	IN MG/L
ENDATA02			

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

PROGRAM	KL MINIMUM	=	0.70000 meters/day
PROGRAM	MAXIMUM ITERATION LIMIT	=	200.00000
PROGRAM	HYDRAULIC CALCULATION METHOD	=	2.00000 (widths and depths)
PROGRAM	TIDE HEIGHT	=	0.00000 meters
PROGRAM	TIDAL PERIOD	=	25.00000 hours
PROGRAM	EFFECTIVE BOD DUE TO ALGAE	=	0.01000 mg/L BOD per ug/L chl a
PROGRAM	ALGAE OXYGEN PRODUCTION RATE	=	0.00000 mg O/ug chl a/day
PROGRAM	INHIBITION CONTROL VALUE	=	3.00000 (inhibit all rates but SOD)
PROGRAM	OCEAN EXCHANGE RATIO	=	0.00000
PROGRAM	SETTLING RATE UNITS	=	2.00000 (values entered as per day)
ENDATA03			

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE RATE CODE THETA VALUE

ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

ENDATA05

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

ENDATA06

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD	TYPE	REACH	ID	NAME	BEGIN REACH km	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM	
REACH ID		1	BT	BT01 & BT-02	22.03	TO	18.63	0.3400	3.40	10	1	10
REACH ID		2	BT	BT02 & BT-03	18.63	TO	14.39	0.2120	4.24	20	11	30
REACH ID		3	BT	BT03 TO GLASS SHOP WEIR	14.39	TO	12.04	0.2350	2.35	10	31	40
REACH ID		4	BT	GLASS SHOP WEIR TO COTEAU WEIR	12.04	TO	9.41	0.2630	2.63	10	41	50
REACH ID		5	BT	COTEAU WEIR TO SONIC WEIR	9.41	TO	6.93	0.2480	2.48	10	51	60
ENDATA08												

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1		1	BT	0.000	0.000	16.460	0.000	0.000	0.400	0.00000	0.030
HYDR-1		2	BT	0.000	0.000	17.680	0.000	0.000	0.370	0.00000	0.030
HYDR-1		3	BT	0.000	0.000	17.680	0.000	0.000	0.360	0.00000	0.030
HYDR-1		4	BT	0.000	0.000	16.460	0.000	0.000	0.490	0.00000	0.030
HYDR-1		5	BT	0.000	0.000	17.680	0.000	0.000	0.950	0.00000	0.030
ENDATA09											

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"	
HYDR		1	BT	0.00	0.000	0.830	0.000	1.000	
HYDR		2	BT	0.00	0.000	0.830	0.000	1.000	
HYDR		3	BT	0.00	0.000	0.830	0.000	1.000	
HYDR		4	BT	0.00	0.000	0.830	0.000	1.000	
HYDR		5	BT	0.00	0.000	0.830	0.000	1.000	
ENDATA10									

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD	TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL		1	BT	32.05	0.20	1.40	0.00	0.00	0.00	62.90	0.00
INITIAL		2	BT	28.25	0.22	0.24	0.00	0.00	0.00	9.70	0.00
INITIAL		3	BT	28.53	0.22	1.59	0.00	0.00	0.00	8.30	0.00
INITIAL		4	BT	30.43	0.20	5.15	0.00	0.00	0.00	5.80	0.00
INITIAL		5	BT	29.40	0.19	3.25	0.00	0.00	0.00	10.90	0.00
ENDATA11											

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD	RCH	RCH	K2	K2	K2	BKGRND	BOD	BOD	BOD	ANAER	BOD2	BOD2	BOD2	BOD2	ANAER
TYPE	NUM	ID	OPT	"A"	"B"	"C"	SOD	DECAY	SETT	CONV	BOD2	DECAY	SETT	CONV	BOD2
						g/m ² /d	per day	m/d	TO SOD		DECAY	per day	SETT	TO SOD	DECAY
COEF-1	1	BT	15 LOUISIANA	0.000	0.000	0.000	3.000	0.230	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	2	BT	15 LOUISIANA	0.000	0.000	0.000	2.800	0.310	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	3	BT	15 LOUISIANA	0.000	0.000	0.000	2.500	0.270	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	4	BT	15 LOUISIANA	0.000	0.000	0.000	1.400	0.300	0.050	0.000	0.000	0.040	0.050	0.000	0.000
COEF-1	5	BT	15 LOUISIANA	0.000	0.000	0.000	2.950	0.250	0.050	0.000	0.000	0.030	0.050	0.000	0.000
ENDATA12															

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	NBOD	NBOD	ORGN	CONV	NH3	NH3	PHOS	DENIT
				DECA	SETT	TO	NH3	DECA	SRCE	SRCE	RATE
COEF-2		1	BT	0.110	0.025	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2		2	BT	0.170	0.025	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2		3	BT	0.060	0.025	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2		4	BT	0.100	0.025	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2		5	BT	0.100	0.025	0.000	0.000	0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	SECCHI	ALGAE:	ALGAE	ALG CONV	ALGAE	ALGAE	MACRO
	MACRO			DEPTH	CHL A	SETT	TO SOD	GROW	RESP	GROW
RESP	SHADING									

ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	COLIFORM	NCM	NCM	NCM CONV
				DIE-OFF	DECAY	SETT	TO SOD

ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD	TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST
	OUT/DIST									
INCR-1		1	BT	0.00000	0.01896	28.25	0.22	17.10	429.80	0.00558
0.00000										
INCR-1		2	BT	0.00000	0.02364	28.53	0.22	16.40	430.80	0.00558
0.00000										
INCR-1		3	BT	0.00000	0.01310	28.84	0.19	12.80	381.20	0.00557
0.00000										
INCR-1		4	BT	-0.02098	0.00000	0.00	0.00	0.00	0.00	0.00000 -
0.00798										
INCR-1		5	BT	-0.01331	0.00000	0.00	0.00	0.00	0.00	0.00000 -
0.00537										

ENDATA16

Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD	TYPE	REACH	ID	DO	BOD	NBOD		BOD#2	
INCR-2		1	BT	0.24	4.10	2.68	0.00	0.00	4.47
INCR-2		2	BT	1.59	3.60	3.04	0.00	0.00	4.78
INCR-2		3	BT	1.71	3.52	1.27	0.00	0.00	3.89
INCR-2		4	BT	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2		5	BT	0.00	0.00	0.00	0.00	0.00	0.00

ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD	TYPE	REACH	ID	PHOS	CHL A	COLI	NCM
INCR-3		1	BT	0.00	9.70	0.00	0.00
INCR-3		2	BT	0.00	8.30	0.00	0.00
INCR-3		3	BT	0.00	5.60	0.00	0.00
INCR-3		4	BT	0.00	0.00	0.00	0.00
INCR-3		5	BT	0.00	0.00	0.00	0.00

ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD	TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT		1	BT	18.50	2.20	0.00	0.00	0.00	8.00
NONPOINT		2	BT	41.00	9.30	0.00	0.00	0.00	13.00
NONPOINT		3	BT	22.00	0.00	0.00	0.00	0.00	3.50
NONPOINT		4	BT	54.00	10.00	0.00	0.00	0.00	17.00
NONPOINT		5	BT	24.00	1.50	0.00	0.00	0.00	9.80

ENDATA19

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD	TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
------	------	---------	------	------	---------------------------	-------------	---------------	--------------	--------------	---------------

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

HDWTR-1 1 BT01 0 0.00000 0.000 32.05 0.20 16.200 452.390
0.00
ENDATA20

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD	TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L		BOD#2 mg/L
HDWTR-2		1	BT01	1.40	12.13	5.15	0.00	0.00
								12.40

ENDATA21

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD	TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
HDWTR-3		1	BT01	0.00	62.90	0.00	0.00

ENDATA22

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD	TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER ELEMENT	NAME KILOM

ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD	TYPE	ELEMENT	RKILO	NAME	FLOW m³/s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L
CM-II										

ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

% BOD %

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

CARD TYPE	ELEMENT	NAME	DO	BOD	RMVL	NBOD	NITRIF
BOD#2							
			mg/L	mg/L		mg/L	mg/L
mg/L	mg/L						

ENDATA25

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS	CHL A	COLI	NCM
			mg/L	mg/L	mg/L	mg/L

ENDATA26

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 28.900 deg C
LOWER BC	SALINITY	= 0.180 ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 11.700 MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 359.600 MG/L
LOWER BC	DISSOLVED OXYGEN	= 0.770 mg/L
LOWER BC	BOD1	= 2.850 mg/L
LOWER BC	BOD2	= 3.440 mg/L
LOWER BC	PHOSPHORUS	= 0.000 mg/L
LOWER BC	CHLOROPHYLL A	= 11.700 µg/L
LOWER BC	COLIFORM	= 0.000 #/100 mL
LOWER BC	NBOD	= 1.710 mg/L

ENDATA27

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
DAM DATA	41	WEIR #1 Glass	1	0.650	0.000	0.200
DAM DATA	51	WEIR #2 Coteau	1	0.650	0.100	0.320

ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
SENSITIV	DEPTH	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BASEFLOW	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	REAERATI	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	VELOCITY	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BOD DECA	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BOD SETT	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BOD2 DEC	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BOD2 SET	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	TRANGE	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	ARATIO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NBOD DEC	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NBOD SET	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BENTHAL	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	TEMPERAT	-2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	SALINITY	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	CHLOR A	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC INFL	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC OUTF	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC TEMP	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC DO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC BOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC CHLO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW FLOW	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW TEMP	-2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW DO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW BOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW CHLO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL FLOW	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL TEMP	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

SENSITIV	WSL DO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL BOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL CHLO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	OXR	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC TEMP	-2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC DO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC BOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC CHLO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NPS BOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NPS BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NPS NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
ENDATA29									

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 5
PLOT RCH 1 2 3 4 5
ENDATA30
\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$
OVERLAY 1 UpperBTCalOverlay.txt
ENDATA31

.....NO ERRORS DETECTED IN INPUT DATA
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
.....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 21

FINAL REPORT BT01
 REACH NO. 1 BT01 & BT-02

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
1	HDWTR	0.00000	32.05	0.20	16.20	452.39	1.40	11.50	12.40	12.13	12.40	5.15	0.00	0.00	0.00	62.90	0.00	0.00
EACH	INCR	0.00190	28.25	0.22	17.10	429.80	0.24	4.10	4.47			2.68	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPNSN m²/s	MEAN VELO m/s	
1	22.03	21.69	0.00190	0.0	0.00029	13.66	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.000	
2	21.69	21.35	0.00379	0.0	0.00058	6.83	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.001	
3	21.35	21.01	0.00569	0.0	0.00086	4.55	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.001	
4	21.01	20.67	0.00758	0.0	0.00115	3.42	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.001	
5	20.67	20.33	0.00948	0.0	0.00144	2.73	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.001	
6	20.33	19.99	0.01138	0.0	0.00173	2.28	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.002	
7	19.99	19.65	0.01327	0.0	0.00202	1.95	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.002	
8	19.65	19.31	0.01517	0.0	0.00230	1.71	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.002	
9	19.31	18.97	0.01706	0.0	0.00259	1.52	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.003	
10	18.97	18.63	0.01896	0.0	0.00288	1.37	0.40	16.46	2238.56	5596.40	6.58	0.00	0.000	0.000	0.003	
TOT						40.02			22385.60	55963.99						
AVG						0.0010			0.40	16.46						
CUM									40.02			6.58				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER	BOD#1 RATE 1/day	BOD#1 DECAY 1/day	ABOD#1 SETT 1/day	BOD#2 DECAY 1/day	BOD#2 SETT 1/day	ABOD#2 DECAY 1/day	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/day	ORGN SETT 1/day	NH3 DECAY 1/day	NH3 SRCE *	DENIT RATE 1/day	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/day	NCM DECAY 1/day	NCM SETT 1/day	
1	21.690	7.34	2.17	0.01	0.07	0.00	0.00	0.07	0.00	6.26	6.26	6.26	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	21.350	7.39	2.15	0.03	0.07	0.00	0.00	0.07	0.00	6.11	6.11	6.11	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	21.010	7.43	2.14	0.05	0.06	0.00	0.01	0.06	0.00	5.96	5.96	5.96	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	20.670	7.48	2.12	0.07	0.06	0.00	0.01	0.06	0.00	5.82	5.82	5.82	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	20.330	7.53	2.11	0.09	0.06	0.00	0.01	0.06	0.00	5.68	5.68	5.68	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	19.990	7.58	2.10	0.11	0.06	0.00	0.01	0.06	0.00	5.55	5.55	5.55	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	19.650	7.63	2.08	0.13	0.06	0.00	0.02	0.06	0.00	5.42	5.42	5.42	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8	19.310	7.68	2.07	0.15	0.06	0.00	0.02	0.06	0.00	5.29	5.29	5.29	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	18.970	7.73	2.06	0.17	0.06	0.00	0.02	0.06	0.00	5.17	5.17	5.17	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10	18.630	7.78	2.06	0.19	0.06	0.00	0.02	0.06	0.00	5.04	5.04	5.04	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C	RATE	1.75	0.23	0.05	0.00	0.03	0.05	0.00	3.00			0.11	0.03	0.00	0.00	0.00			0.00	0.00	0.00	

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
1	21.690	31.67	0.20	17.10	429.80	0.07	7.35	4.86	7.92	4.86	2.76	0.00	0.00	0.00	0.00	57.58	0.00	0.	0.00
2	21.350	31.29	0.20	17.10	429.80	0.17	6.79	4.81	7.31	4.81	2.77	0.00	0.00	0.00	0.00	52.26	0.00	0.	0.00
3	21.010	30.91	0.21	17.10	429.80	0.28	6.28	4.77	6.75	4.77	2.77	0.00	0.00	0.00	0.00	46.94	0.00	0.	0.00
4	20.670	30.53	0.21	17.10	429.80	0.39	5.83	4.72	6.24	4.72	2.78	0.00	0.00	0.00	0.00	41.62	0.00	0.	0.00
5	20.330	30.15	0.21	17.10	429.80	0.50	5.42	4.68	5.78	4.68	2.78	0.00	0.00	0.00	0.00	36.30	0.00	0.	0.00
6	19.990	29.77	0.21	17.10	429.80	0.62	5.06	4.64	5.37	4.64	2.78	0.00	0.00	0.00	0.00	30.98	0.00	0.	0.00
7	19.650	29.39	0.21	17.10	429.80	0.74	4.74	4.60	5.00	4.60	2.77	0.00	0.00	0.00	0.00	25.66	0.00	0.	0.00
8	19.310	29.01	0.22	17.10	429.80	0.86	4.46	4.56	4.67	4.56	2.75	0.00	0.00	0.00	0.00	20.34	0.00	0.	0.00
9	18.970	28.63	0.22	17.10	429.80	0.99	4.21	4.52	4.36	4.52	2.72	0.00	0.00	0.00	0.00	15.02	0.00	0.	0.00
10	18.630	28.25	0.22	17.10	429.80	1.13	3.98	4.48	4.08	4.48	2.68	0.00	0.00	0.00	0.00	9.70	0.00	0.	0.00

REACH NO. 2 BT02 & BT-03

UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
11	UPR RCH	0.01896	28.25	0.22	17.10	429.80	1.13	3.98	4.48	4.08	4.48	2.68	0.00	0.00	0.00	9.70	0.00	0.00
EACH	INCR	0.00118	28.53	0.22	16.40	430.80	1.59	3.60	4.78			3.04	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPNSN m²/s	MEAN VELO m/s
11	18.63	18.42	0.02014	0.0	0.00308	0.80	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.003
12	18.42	18.21	0.02132	0.0	0.00326	0.75	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.003
13	18.21	17.99	0.02251	0.0	0.00344	0.71	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.003
14	17.99	17.78	0.02369	0.0	0.00362	0.68	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
15	17.78	17.57	0.02487	0.0	0.00380	0.65	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
16	17.57	17.36	0.02605	0.0	0.00398	0.62	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
17	17.36	17.15	0.02723	0.0	0.00416	0.59	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
18	17.15	16.93	0.02842	0.0	0.00434	0.56	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.004
19	16.93	16.72	0.02960	0.0	0.00452	0.54	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
20	16.72	16.51	0.03078	0.0	0.00471	0.52	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
21	16.51	16.30	0.03196	0.0	0.00489	0.50	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
22	16.30	16.09	0.03314	0.0	0.00507	0.48	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
23	16.09	15.87	0.03433	0.0	0.00525	0.47	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
24	15.87	15.66	0.03551	0.0	0.00543	0.45	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.005
25	15.66	15.45	0.03669	0.0	0.00561	0.44	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
26	15.45	15.24	0.03787	0.0	0.00579	0.42	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
27	15.24	15.03	0.03905	0.0	0.00597	0.41	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
28	15.03	14.81	0.04024	0.0	0.00615	0.40	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
29	14.81	14.60	0.04142	0.0	0.00633	0.39	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.006
30	14.60	14.39	0.04260	0.0	0.00651	0.38	0.37	17.68	1386.82	3748.16	6.54	0.00	0.000	0.000	0.007

TOT		10.76		27736.38	74963.20	
AVG		0.0046	0.37	17.68		6.54
CUM		50.79				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
11	18.418	7.78	2.23	0.30	0.06	0.00	0.03	0.06	0.00	4.71	4.71	4.71	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	18.206	7.78	2.24	0.31	0.06	0.00	0.03	0.06	0.00	4.72	4.72	4.72	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	17.994	7.78	2.25	0.32	0.06	0.00	0.03	0.06	0.00	4.72	4.72	4.72	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	17.782	7.78	2.26	0.32	0.06	0.00	0.03	0.06	0.00	4.72	4.72	4.72	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	17.570	7.77	2.27	0.32	0.06	0.00	0.03	0.06	0.00	4.73	4.73	4.73	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	17.358	7.77	2.28	0.33	0.06	0.00	0.03	0.06	0.00	4.73	4.73	4.73	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	17.146	7.77	2.29	0.33	0.06	0.00	0.03	0.06	0.00	4.74	4.74	4.74	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	16.934	7.77	2.29	0.33	0.06	0.00	0.03	0.06	0.00	4.74	4.74	4.74	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	16.722	7.77	2.30	0.34	0.06	0.00	0.03	0.06	0.00	4.75	4.75	4.75	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	16.510	7.76	2.31	0.34	0.06	0.00	0.03	0.06	0.00	4.75	4.75	4.75	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	16.298	7.76	2.32	0.34	0.06	0.00	0.03	0.06	0.00	4.75	4.75	4.75	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	16.086	7.76	2.33	0.34	0.06	0.00	0.03	0.06	0.00	4.76	4.76	4.76	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	15.874	7.76	2.34	0.35	0.06	0.00	0.03	0.06	0.00	4.76	4.76	4.76	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	15.662	7.76	2.35	0.35	0.06	0.00	0.03	0.06	0.00	4.77	4.77	4.77	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	15.450	7.75	2.36	0.35	0.06	0.00	0.03	0.06	0.00	4.77	4.77	4.77	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	15.238	7.75	2.36	0.36	0.06	0.00	0.03	0.06	0.00	4.77	4.77	4.77	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	15.026	7.75	2.37	0.36	0.06	0.00	0.03	0.06	0.00	4.78	4.78	4.78	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	14.814	7.75	2.38	0.36	0.06	0.00	0.03	0.06	0.00	4.78	4.78	4.78	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	14.602	7.75	2.39	0.36	0.06	0.00	0.04	0.06	0.00	4.79	4.79	4.79	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	14.390	7.75	2.40	0.37	0.06	0.00	0.04	0.06	0.00	4.79	4.79	4.79	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avg	20	DEG C RATE	1.98	0.31	0.05	0.00	0.03	0.05	0.00	2.80			0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
11	18.418	28.26	0.22	17.06	429.86	1.33	4.00	4.54	4.09	4.54	2.80	0.00	0.00	0.00	0.00	9.63	0.00	0.	0.00
12	18.206	28.28	0.22	17.02	429.91	1.39	3.97	4.59	4.07	4.59	2.88	0.00	0.00	0.00	0.00	9.56	0.00	0.	0.00
13	17.994	28.29	0.22	16.99	429.96	1.41	3.95	4.63	4.04	4.63	2.95	0.00	0.00	0.00	0.00	9.49	0.00	0.	0.00
14	17.782	28.31	0.22	16.96	430.00	1.42	3.92	4.67	4.01	4.67	3.00	0.00	0.00	0.00	0.00	9.42	0.00	0.	0.00
15	17.570	28.32	0.22	16.93	430.04	1.44	3.89	4.69	3.99	4.69	3.04	0.00	0.00	0.00	0.00	9.35	0.00	0.	0.00
16	17.358	28.33	0.22	16.91	430.07	1.45	3.87	4.72	3.96	4.72	3.08	0.00	0.00	0.00	0.00	9.28	0.00	0.	0.00
17	17.146	28.35	0.22	16.89	430.10	1.46	3.84	4.74	3.93	4.74	3.10	0.00	0.00	0.00	0.00	9.21	0.00	0.	0.00
18	16.934	28.36	0.22	16.87	430.13	1.47	3.82	4.75	3.91	4.75	3.12	0.00	0.00	0.00	0.00	9.14	0.00	0.	0.00
19	16.722	28.38	0.22	16.85	430.16	1.48	3.79	4.77	3.88	4.77	3.14	0.00	0.00	0.00	0.00	9.07	0.00	0.	0.00
20	16.510	28.39	0.22	16.83	430.18	1.49	3.77	4.78	3.86	4.78	3.15	0.00	0.00	0.00	0.00	9.00	0.00	0.	0.00
21	16.298	28.40	0.22	16.82	430.21	1.50	3.75	4.79	3.84	4.79	3.15	0.00	0.00	0.00	0.00	8.93	0.00	0.	0.00
22	16.086	28.42	0.22	16.80	430.23	1.51	3.73	4.79	3.82	4.79	3.15	0.00	0.00	0.00	0.00	8.86	0.00	0.	0.00
23	15.874	28.43	0.22	16.79	430.25	1.52	3.71	4.80	3.79	4.80	3.15	0.00	0.00	0.00	0.00	8.79	0.00	0.	0.00
24	15.662	28.45	0.22	16.77	430.27	1.54	3.69	4.81	3.77	4.81	3.15	0.00	0.00	0.00	0.00	8.72	0.00	0.	0.00
25	15.450	28.46	0.22	16.76	430.28	1.55	3.67	4.81	3.75	4.81	3.14	0.00	0.00	0.00	0.00	8.65	0.00	0.	0.00
26	15.238	28.47	0.22	16.75	430.30	1.56	3.65	4.81	3.73	4.81	3.13	0.00	0.00	0.00	0.00	8.58	0.00	0.	0.00
27	15.026	28.49	0.22	16.74	430.31	1.57	3.63	4.81	3.71	4.81	3.12	0.00	0.00	0.00	0.00	8.51	0.00	0.	0.00
28	14.814	28.50	0.22	16.73	430.33	1.58	3.61	4.82	3.69	4.82	3.11	0.00	0.00	0.00	0.00	8.44	0.00	0.	0.00
29	14.602	28.52	0.22	16.72	430.34	1.59	3.59	4.82	3.67	4.82	3.09	0.00	0.00	0.00	0.00	8.37	0.00	0.	0.00
30	14.390	28.53	0.22	16.71	430.36	1.60	3.57	4.82	3.65	4.82	3.08	0.00	0.00	0.00	0.00	8.30	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 3 BT03 TO GLASS SHOP WEIR

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
31	UPR RCH	0.04260	28.53	0.22	16.71	430.36	1.60	3.57	4.82	3.65	4.82	3.08	0.00	0.00	0.00	8.30	0.00	0.00
EACH	INCR	0.00131	28.84	0.19	12.80	381.20	1.71	3.52	3.89			1.27	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
31	14.39	14.16	0.04391	0.0	0.00690	0.39	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.007
32	14.16	13.92	0.04522	0.0	0.00710	0.38	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.007
33	13.92	13.69	0.04653	0.0	0.00731	0.37	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.007
34	13.69	13.45	0.04784	0.0	0.00752	0.36	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
35	13.45	13.22	0.04915	0.0	0.00772	0.35	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
36	13.22	12.98	0.05046	0.0	0.00793	0.34	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
37	12.98	12.75	0.05177	0.0	0.00813	0.33	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
38	12.75	12.51	0.05308	0.0	0.00834	0.33	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.008
39	12.51	12.28	0.05439	0.0	0.00855	0.32	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.009
40	12.28	12.04	0.05570	0.0	0.00875	0.31	0.36	17.68	1495.73	4154.80	6.36	0.00	0.000	0.000	0.009
TOT						3.50			14957.28	41548.00					
AVG						0.0078			0.36	17.68					
CUM						54.28						6.36			

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d	
31	14.155	7.72	2.49	0.38	0.06	0.00	0.04	0.06	0.00	4.33	4.33	4.33	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32	13.920	7.69	2.51	0.41	0.06	0.00	0.05	0.06	0.00	4.38	4.38	4.38	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33	13.685	7.67	2.53	0.41	0.06	0.00	0.05	0.06	0.00	4.43	4.43	4.43	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34	13.450	7.64	2.55	0.41	0.06	0.00	0.05	0.06	0.00	4.49	4.49	4.49	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35	13.215	7.62	2.56	0.42	0.06	0.00	0.05	0.06	0.00	4.54	4.54	4.54	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	12.980	7.59	2.58	0.42	0.06	0.00	0.05	0.06	0.00	4.60	4.60	4.60	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37	12.745	7.57	2.60	0.42	0.06	0.00	0.05	0.06	0.00	4.65	4.65	4.65	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38	12.510	7.54	2.62	0.41	0.06	0.00	0.05	0.06	0.00	4.71	4.71	4.71	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

39	12.275	7.52	2.64	0.41	0.06	0.00	0.05	0.06	0.00	4.76	4.76	4.76	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
40	12.040	7.49	2.66	0.41	0.06	0.00	0.05	0.06	0.00	4.82	4.82	4.82	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
AVG	20	DEG C RATE	2.16	0.27	0.05	0.00	0.03	0.05	0.00	2.50				0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
31	14.155	28.72	0.22	16.59	428.89	1.90	3.53	4.69	3.61	4.69	2.92	0.00	0.00	0.00	0.00	8.05	0.00	0.	0.00
32	13.920	28.91	0.22	16.48	427.51	2.00	3.47	4.57	3.55	4.57	2.76	0.00	0.00	0.00	0.00	7.80	0.00	0.	0.00
33	13.685	29.10	0.21	16.38	426.20	2.04	3.42	4.46	3.50	4.46	2.61	0.00	0.00	0.00	0.00	7.55	0.00	0.	0.00
34	13.450	29.29	0.21	16.28	424.97	2.04	3.37	4.36	3.45	4.36	2.48	0.00	0.00	0.00	0.00	7.30	0.00	0.	0.00
35	13.215	29.48	0.21	16.19	423.80	2.02	3.33	4.26	3.40	4.26	2.36	0.00	0.00	0.00	0.00	7.05	0.00	0.	0.00
36	12.980	29.67	0.21	16.10	422.70	1.99	3.30	4.18	3.37	4.18	2.24	0.00	0.00	0.00	0.00	6.80	0.00	0.	0.00
37	12.745	29.86	0.21	16.02	421.65	1.96	3.27	4.10	3.34	4.10	2.14	0.00	0.00	0.00	0.00	6.55	0.00	0.	0.00
38	12.510	30.05	0.20	15.94	420.65	1.93	3.25	4.03	3.31	4.03	2.05	0.00	0.00	0.00	0.00	6.30	0.00	0.	0.00
39	12.275	30.24	0.20	15.86	419.70	1.90	3.24	3.96	3.30	3.96	1.97	0.00	0.00	0.00	0.00	6.05	0.00	0.	0.00
40	12.040	30.43	0.20	15.79	418.79	1.87	3.23	3.90	3.28	3.90	1.89	0.00	0.00	0.00	0.00	5.80	0.00	0.	0.00

FINAL REPORT
 REACH NO. 4

BT01
 GLASS SHOP WEIR TO COTEAU WEIR

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW deg C	TEMP ppt	SALN	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
41	UPR RCH	0.05570	30.43	0.20	15.79	418.79	1.87	3.23	3.90	3.28	3.90	1.89	0.00	0.00	0.00	5.80	0.00	0.00
41	DAM EACH	WEIR #1 ADDs INCR	Glass	0.00	MG/L	DISSOLVED OXYGEN	GIVING	1.87	MG/L	D.O.	FOR THE	UPR	RCH	INPUT	-0.00210			

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
41	12.04	11.78	0.05360	0.0	0.00665	0.46	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.007
42	11.78	11.51	0.05150	0.0	0.00639	0.48	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.006
43	11.51	11.25	0.04941	0.0	0.00613	0.50	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.006
44	11.25	10.99	0.04731	0.0	0.00587	0.52	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.006
45	10.99	10.72	0.04521	0.0	0.00561	0.54	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.006
46	10.72	10.46	0.04311	0.0	0.00535	0.57	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.005
47	10.46	10.20	0.04101	0.0	0.00509	0.60	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.005
48	10.20	9.94	0.03892	0.0	0.00483	0.63	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.005
49	9.94	9.67	0.03682	0.0	0.00456	0.67	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.005
50	9.67	9.41	0.03472	0.0	0.00430	0.71	0.49	16.46	2121.20	4328.98	8.07	0.00	0.000	0.000	0.004
TOT						5.67			21212.00	43289.80					
AVG						0.0054			0.49	16.46					
CUM						59.95					8.07				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d	
41	11.777	7.51	1.87	0.48	0.06	0.00	0.06	0.06	0.00	2.68	2.68	2.68	0.15	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42	11.514	7.52	1.86	0.48	0.06	0.00	0.06	0.06	0.00	2.67	2.67	2.67	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43	11.251	7.53	1.85	0.48	0.06	0.00	0.06	0.06	0.00	2.65	2.65	2.65	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	10.988	7.55	1.84	0.48	0.06	0.00	0.06	0.06	0.00	2.63	2.63	2.63	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45	10.725	7.56	1.82	0.47	0.06	0.00	0.06	0.06	0.00	2.61	2.61	2.61	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46	10.462	7.57	1.81	0.47	0.06	0.00	0.06	0.06	0.00	2.60	2.60	2.60	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47	10.199	7.59	1.80	0.47	0.06	0.00	0.06	0.06	0.00	2.58	2.58	2.58	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	9.936	7.60	1.79	0.47	0.06	0.00	0.06	0.06	0.00	2.56	2.56	2.56	0.15	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49	9.673	7.62	1.77	0.46	0.06	0.00	0.06	0.06	0.00	2.55	2.55	2.55	0.15	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

50	9.410	7.63	1.76	0.46	0.06	0.00	0.06	0.06	0.00	2.53	2.53	2.53	0.15	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE		1.51	0.30	0.05	0.00	0.04	0.05	0.00	1.40			0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
*	g/m ² /d			**	mg/L/day																			

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
41	11.777	30.33	0.20	15.79	418.79	2.56	3.50	4.02	3.57	4.02	1.94	0.00	0.00	0.00	0.00	6.31	0.00	0.	0.00
42	11.514	30.22	0.20	15.79	418.79	2.91	3.74	4.15	3.81	4.15	1.99	0.00	0.00	0.00	0.00	6.82	0.00	0.	0.00
43	11.251	30.12	0.20	15.79	418.79	3.08	3.94	4.27	4.01	4.27	2.03	0.00	0.00	0.00	0.00	7.33	0.00	0.	0.00
44	10.988	30.02	0.20	15.79	418.79	3.15	4.10	4.39	4.18	4.39	2.07	0.00	0.00	0.00	0.00	7.84	0.00	0.	0.00
45	10.725	29.92	0.20	15.79	418.79	3.17	4.24	4.51	4.33	4.51	2.11	0.00	0.00	0.00	0.00	8.35	0.00	0.	0.00
46	10.462	29.81	0.19	15.79	418.79	3.17	4.36	4.63	4.45	4.63	2.14	0.00	0.00	0.00	0.00	8.86	0.00	0.	0.00
47	10.199	29.71	0.19	15.79	418.79	3.16	4.46	4.75	4.55	4.75	2.18	0.00	0.00	0.00	0.00	9.37	0.00	0.	0.00
48	9.936	29.61	0.19	15.79	418.79	3.14	4.55	4.86	4.64	4.86	2.22	0.00	0.00	0.00	0.00	9.88	0.00	0.	0.00
49	9.673	29.50	0.19	15.79	418.79	3.13	4.62	4.98	4.72	4.98	2.25	0.00	0.00	0.00	0.00	10.39	0.00	0.	0.00
50	9.410	29.40	0.19	15.79	418.79	3.11	4.68	5.09	4.79	5.09	2.29	0.00	0.00	0.00	0.00	10.90	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 5 COTEAU WEIR TO SONIC WEIR

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW deg C	TEMP ppt	SALN MG/L	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
51	UPR RCH	0.03472	29.40	0.19	15.79	418.79	3.11	4.68	5.09	4.79	5.09	2.29	0.00	0.00	0.00	10.90	0.00	0.00
51	DAM	WEIR #2 Coteau ADDS	0.08 MG/L DISSOLVED OXYGEN GIVING															
EACH	INCR	-0.00133																

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW m³/s	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPNSN	MEAN VELO
	km	km		m/s		days				m²	m²	m³	m/s	m²/s	m/s
51	9.41	9.16	0.03339	0.0	0.00199	1.44	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
52	9.16	8.91	0.03206	0.0	0.00191	1.50	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
53	8.91	8.67	0.03073	0.0	0.00183	1.57	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
54	8.67	8.42	0.02940	0.0	0.00175	1.64	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
55	8.42	8.17	0.02807	0.0	0.00167	1.72	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
56	8.17	7.92	0.02673	0.0	0.00159	1.80	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
57	7.92	7.67	0.02540	0.0	0.00151	1.90	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.002
58	7.67	7.43	0.02407	0.0	0.00143	2.00	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.001
59	7.43	7.18	0.02274	0.0	0.00135	2.12	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.001
60	7.18	6.93	0.02141	0.0	0.00127	2.25	0.95	17.68	4165.41	4384.64	16.80	0.00	0.000	0.000	0.001
TOT						17.95			41654.07	43846.40					
AVG						0.0016			0.95	17.68					
CUM						77.90									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECY 1/da	NCM DECY 1/da	NCM SETT 1/da	
51	9.162	7.64	0.88	0.26	0.06	0.00	0.03	0.06	0.00	5.32	5.32	5.32	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	8.914	7.64	0.88	0.17	0.06	0.00	0.02	0.06	0.00	5.30	5.30	5.30	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	8.666	7.65	0.87	0.14	0.06	0.00	0.02	0.06	0.00	5.28	5.28	5.28	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	8.418	7.66	0.87	0.14	0.06	0.00	0.02	0.06	0.00	5.27	5.27	5.27	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	8.170	7.66	0.87	0.14	0.06	0.00	0.02	0.06	0.00	5.25	5.25	5.25	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56	7.922	7.67	0.87	0.14	0.06	0.00	0.02	0.06	0.00	5.23	5.23	5.23	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57	7.674	7.68	0.87	0.15	0.06	0.00	0.02	0.06	0.00	5.22	5.22	5.22	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58	7.426	7.68	0.87	0.15	0.06	0.00	0.02	0.06	0.00	5.20	5.20	5.20	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59	7.178	7.69	0.87	0.15	0.06	0.00	0.02	0.06	0.00	5.18	5.18	5.18	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	6.930	7.70	0.87	0.16	0.06	0.00	0.02	0.06	0.00	5.17	5.17	5.17	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
51	9.162	29.35	0.19	15.79	418.79	1.37	3.78	4.79	3.89	4.79	2.15	0.00	0.00	0.00	0.00	10.98	0.00	0.	0.00
52	8.914	29.30	0.19	15.79	418.79	0.88	3.46	4.59	3.57	4.59	2.09	0.00	0.00	0.00	0.00	11.06	0.00	0.	0.00
53	8.666	29.25	0.19	15.79	418.79	0.75	3.31	4.41	3.42	4.41	2.03	0.00	0.00	0.00	0.00	11.14	0.00	0.	0.00
54	8.418	29.20	0.19	15.79	418.79	0.73	3.20	4.26	3.31	4.26	1.98	0.00	0.00	0.00	0.00	11.22	0.00	0.	0.00
55	8.170	29.15	0.19	15.79	418.79	0.74	3.11	4.11	3.23	4.11	1.92	0.00	0.00	0.00	0.00	11.30	0.00	0.	0.00
56	7.922	29.10	0.18	15.79	418.79	0.76	3.03	3.97	3.15	3.97	1.87	0.00	0.00	0.00	0.00	11.38	0.00	0.	0.00
57	7.674	29.05	0.18	15.79	418.79	0.78	2.96	3.85	3.07	3.85	1.82	0.00	0.00	0.00	0.00	11.46	0.00	0.	0.00
58	7.426	29.00	0.18	15.79	418.79	0.80	2.88	3.73	3.00	3.73	1.77	0.00	0.00	0.00	0.00	11.54	0.00	0.	0.00
59	7.178	28.95	0.18	15.79	418.79	0.82	2.81	3.61	2.93	3.61	1.72	0.00	0.00	0.00	0.00	11.62	0.00	0.	0.00
60	6.930	28.90	0.18	15.79	418.79	0.84	2.75	3.51	2.87	3.51	1.67	0.00	0.00	0.00	0.00	11.70	0.00	0.	0.00

STREAM SUMMARY

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

TRAVEL TIME = 77.90 DAYS

MAXIMUM EFFLUENT = 0.00 PERCENT

$$\text{FLOW} = 0.00190 \text{ TO } 0.05570 \text{ m}^3/\text{s}$$

$$\text{VELOCITY} \equiv 0.00029 \text{ TO } 0.00875 \text{ m/s}$$

VELOCITY = 0.00025 TO 0.00075 m/s
DEPTH = 0.36 TO 0.95 m

$$\begin{array}{lllll} \text{DEPTH} & = & 0.36 & 10 & 0.95 \\ \text{WIDTH} & = & 16.46 & 10 & 17.68 \end{array} \quad \text{m}$$

WIDTH = 16.46 TO 17.68 m

NH₃ DECAY = 0.00 TO 0.00 per day

SOD	=	2.53	TO	6.26	g/m ² /d
NH3 SOURCE	=	0.00	TO	0.00	g/m ² /d
REAERATION	=	0.87	TO	2.66	per day
BOD SETTLING	=	0.06	TO	0.07	per day
NBOD DECAY	=	0.00	TO	0.16	per day
NBOD SETTLING	=	0.03	TO	0.03	per day
TEMPERATURE	=	28.25	TO	31.67	deg C
DISSOLVED OXYGEN	=	0.07	TO	3.17	mg/L

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	AVG	AVG	FLOW AT	AVERAGE	AVG	AVG
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH	EOR	VELO	DEPTH	WIDTH
			km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 1 ON PARAMETER SET 1 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	Flow at EOR cfs	Average velo fps	Avg depth ft	Avg width ft
1 BT01 & BT-02	22.03	18.63	3.40	28.02	0.01896	0.00140	0.280	16.46	0.669	0.005	0.919	54.01
2 BT02 & BT-03	18.63	14.39	4.24	7.53	0.04260	0.00651	0.259	17.68	1.504	0.021	0.850	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	2.45	0.05570	0.01111	0.252	17.68	1.967	0.036	0.827	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	3.97	0.03472	0.00767	0.343	16.46	1.226	0.025	1.125	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	12.57	0.02141	0.00228	0.665	17.68	0.756	0.007	2.182	58.01

.....BEGIN SENSITIVITY RUN 2 ON PARAMETER SET 1 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	Flow at EOR cfs	Average velo fps	Avg depth ft	Avg width ft
1 BT01 & BT-02	22.03	18.63	3.40	52.03	0.01896	0.00076	0.520	16.46	0.669	0.002	1.706	54.01
2 BT02 & BT-03	18.63	14.39	4.24	13.99	0.04260	0.00351	0.481	17.68	1.504	0.012	1.578	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	4.54	0.05570	0.00598	0.468	17.68	1.967	0.020	1.536	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	7.37	0.03472	0.00413	0.637	16.46	1.226	0.014	2.090	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	23.34	0.02141	0.00123	1.235	17.68	0.756	0.004	4.052	58.01

.....BEGIN SENSITIVITY RUN 3 ON PARAMETER SET 2 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	57.18	0.01327	0.00069	0.400	16.46	0.469	0.002	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	15.37	0.02982	0.00319	0.370	17.68	1.053	0.010	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	4.99	0.03899	0.00545	0.360	17.68	1.377	0.018	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	9.42	0.01801	0.00323	0.490	16.46	0.636	0.011	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	52.67	0.00470	0.00054	0.950	17.68	0.166	0.002	3.117	58.01

.....BEGIN SENSITIVITY RUN 4 ON PARAMETER SET 2 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	30.79	0.02465	0.00128	0.400	16.46	0.870	0.004	1.312
2	BT02 & BT-03		18.63	14.39	4.24	8.28	0.05538	0.00593	0.370	17.68	1.955	0.019	1.214
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	2.69	0.07241	0.01011	0.360	17.68	2.557	0.033	1.181
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	4.07	0.05143	0.00747	0.490	16.46	1.816	0.025	1.608
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	11.01	0.03812	0.00261	0.950	17.68	1.346	0.009	3.117

.....BEGIN SENSITIVITY RUN 5 ON PARAMETER SET 3 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

***** WARNING: NEGATIVE CONCENTRATIONS SET TO ZERO FOR Dissolved Oxygen

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117

.....BEGIN SENSITIVITY RUN 6 ON PARAMETER SET 3 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 19 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 7 ON PARAMETER SET 4 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	57.18	0.01896	0.00069	0.400	23.51	0.669	0.002	1.312
2	BT02 & BT-03		18.63	14.39	4.24	15.37	0.04260	0.00319	0.370	25.26	1.504	0.010	1.214
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	4.99	0.05570	0.00545	0.360	25.26	1.967	0.018	1.181
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	8.09	0.03472	0.00376	0.490	23.51	1.226	0.012	1.608
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	25.64	0.02141	0.00112	0.950	25.26	0.756	0.004	3.117

.....BEGIN SENSITIVITY RUN 8 ON PARAMETER SET 4 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	30.79	0.01896	0.00128	0.400	12.66	0.669	0.004	1.312
2	BT02 & BT-03		18.63	14.39	4.24	8.28	0.04260	0.00593	0.370	13.60	1.504	0.019	1.214
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	2.69	0.05570	0.01011	0.360	13.60	1.967	0.033	1.181
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	4.36	0.03472	0.00698	0.490	12.66	1.226	0.023	1.608
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	13.81	0.02141	0.00208	0.950	13.60	0.756	0.007	3.117

.....BEGIN SENSITIVITY RUN 9 ON PARAMETER SET 5 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 10 ON PARAMETER SET 5 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	AVG	FLOW AT	AVERAGE	Avg	Avg
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH	EOR	VELO	DEPTH	WIDTH
			km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 11 ON PARAMETER SET 6 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	AVG	FLOW AT	AVERAGE	Avg	Avg
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH	EOR	VELO	DEPTH	WIDTH
			km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 12 ON PARAMETER SET 6 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg Depth	Avg Width	Flow at EOR	Average Velo	Avg Depth	Avg Width
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 13 ON PARAMETER SET 7 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	Avg	FLOW AT	AVERAGE	Avg	Avg
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH	EOR	VELO	DEPTH	WIDTH
			km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 14 ON PARAMETER SET 7 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	Avg	FLOW AT	AVERAGE	Avg	Avg
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH	EOR	VELO	DEPTH	WIDTH
			km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 15 ON PARAMETER SET 8 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 16 ON PARAMETER SET 8 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	Avg	FLOW AT	AVERAGE	Avg	Avg
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NO.	DIST km	DIST km	LENGTH km	TIME days	GOR m3/s	VELO m/s	DEPTH m	WIDTH m	GOR cfs	VELO fps	DEPTH ft	WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 17 ON PARAMETER SET 9 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT GOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT GOR cfs	Average VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 18 ON PARAMETER SET 9 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 19 ON PARAMETER SET 10 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft

	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 20 ON PARAMETER SET 10 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 21 ON PARAMETER SET 11 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg Depth m	Avg Width m	Flow at EOR cfs	Average velo fps	Avg depth ft	Avg width ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 22 ON PARAMETER SET 11 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg Depth m	Avg Width m	Flow at EOR cfs	Average velo fps	Avg depth ft	Avg width ft

1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 23 ON PARAMETER SET 12 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 24 ON PARAMETER SET 12 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 25 ON PARAMETER SET 13 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 19 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft

1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 26 ON PARAMETER SET 13 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

***** WARNING: NEGATIVE CONCENTRATIONS SET TO ZERO FOR Dissolved Oxygen

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 27 ON PARAMETER SET 14 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 18 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH DIST km	TRAVEL LENGTH km	TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 28 ON PARAMETER SET 14 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

***** WARNING: NEGATIVE CONCENTRATIONS SET TO ZERO FOR Dissolved Oxygen

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH DIST km	TRAVEL LENGTH km	TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01

1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 29 ON PARAMETER SET 15 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 30 ON PARAMETER SET 15 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 31 ON PARAMETER SET 16 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft

1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 32 ON PARAMETER SET 16 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	Average VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 33 ON PARAMETER SET 17 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	57.18	0.01327	0.00069	0.400	16.46	0.469	0.002	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	15.37	0.02982	0.00319	0.370	17.68	1.053	0.010	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	4.99	0.03899	0.00545	0.360	17.68	1.377	0.018	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	9.42	0.01801	0.00323	0.490	16.46	0.636	0.011	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	52.67	0.00470	0.00054	0.950	17.68	0.166	0.002	3.117	58.01

.....BEGIN SENSITIVITY RUN 34 ON PARAMETER SET 17 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	30.79	0.02465	0.00128	0.400	16.46	0.870	0.004	1.312	54.01

2 BT02 & BT-03	18.63	14.39	4.24	8.28	0.05538	0.00593	0.370	17.68	1.955	0.019	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	2.69	0.07241	0.01011	0.360	17.68	2.557	0.033	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	4.07	0.05143	0.00747	0.490	16.46	1.816	0.025	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	11.01	0.03812	0.00261	0.950	17.68	1.346	0.009	3.117	58.01

.....BEGIN SENSITIVITY RUN 35 ON PARAMETER SET 18 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST	REACH DIST	TRAVEL LENGTH	FLOW AT TIME	AVERAGE VELO	Avg DEPTH	AVG WIDTH	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	AVG WIDTH	
			km	km	km	days	m3/s	m	m	cfs	fps	ft	ft	
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.400	16.46	0.669	0.003	1.312	54.01	
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.20	0.04101	0.00586	0.490	16.46	1.448	0.019	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	13.51	0.03170	0.00212	0.950	17.68	1.119	0.007	3.117	58.01

.....BEGIN SENSITIVITY RUN 36 ON PARAMETER SET 18 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	6.27	0.02843	0.00485	0.490	16.46	1.004	0.016	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	27.51	0.01112	0.00104	0.950	17.68	0.393	0.003	3.117	58.01

.....BEGIN SENSITIVITY RUN 37 ON PARAMETER SET 19 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01

3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 38 ON PARAMETER SET 19 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m ³ /s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	Average VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 39 ON PARAMETER SET 20 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	Flow At EOR cfs	Average VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 40 ON PARAMETER SET 20 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	Flow At EOR cfs	Average VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01

4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01	
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 41 ON PARAMETER SET 21 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m ³ /s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft	
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01	
2 BT02 & BT-03		18.63	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01	
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01	
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01	
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 42 ON PARAMETER SET 21 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH DIST km	TRAVEL LENGTH km	TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 43 ON PARAMETER SET 22 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH DIST km	TRAVEL LENGTH km	TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01

5 COTEAU WEIR TO SONIC WEIR 9.41 6.93 2.48 17.95 0.02141 0.00160 0.950 17.68 0.756 0.005 3.117 58.01

.....BEGIN SENSITIVITY RUN 44 ON PARAMETER SET 22 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH DIST km	LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 45 ON PARAMETER SET 23 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 46 ON PARAMETER SET 23 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 47 ON PARAMETER SET 24 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 48 ON PARAMETER SET 24 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	Flow at EOR cfs	Average velo fps	Avg depth ft	Avg width ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 49 ON PARAMETER SET 25 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	Flow at EOR cfs	Average velo fps	Avg depth ft	Avg width ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 50 ON PARAMETER SET 25 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 51 ON PARAMETER SET 26 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117

.....BEGIN SENSITIVITY RUN 52 ON PARAMETER SET 26 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117

.....BEGIN SENSITIVITY RUN 53 ON PARAMETER SET 27 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 54 ON PARAMETER SET 27 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	AVG	FLOW AT	AVERAGE	Avg	Avg
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH	EOR	VELO	DEPTH	WIDTH
			km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 55 ON PARAMETER SET 28 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	AVG	FLOW AT	AVERAGE	Avg	Avg
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH	EOR	VELO	DEPTH	WIDTH
			km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 56 ON PARAMETER SET 28 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg Depth	Avg Width	Flow At EOR	Average Velo	Avg Depth	Avg Width
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 57 ON PARAMETER SET 29 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	Avg	FLOW AT	AVERAGE	Avg	Avg
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH	EOR	VELO	DEPTH	WIDTH
			km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 58 ON PARAMETER SET 29 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	Avg	FLOW AT	AVERAGE	Avg	Avg
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH	EOR	VELO	DEPTH	WIDTH
			km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 59 ON PARAMETER SET 30 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO m/s	Avg Depth	Avg Width	Flow At EOR	Average Velo cfs	Avg Depth ft	Avg Width ft
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 60 ON PARAMETER SET 30 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	Avg	Flow At	Average	Avg	Avg
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NO.	DIST km	DIST km	LENGTH km	TIME days	EOR m³/s	VELO m/s	DEPTH m	WIDTH m	EOR cfs	VELO fps	DEPTH ft	WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 61 ON PARAMETER SET 31 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m³/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	Flow at EOR cfs	Average velo fps	Avg depth ft	Avg width ft
1 BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 62 ON PARAMETER SET 31 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 63 ON PARAMETER SET 32 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH
NO.													

	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 64 ON PARAMETER SET 32 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 65 ON PARAMETER SET 33 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg Depth m	Avg Width m	Flow at EOR cfs	Average velo fps	Avg depth ft	Avg width ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 66 ON PARAMETER SET 33 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg Depth m	Avg Width m	Flow at EOR cfs	Average velo fps	Avg depth ft	Avg width ft

1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 67 ON PARAMETER SET 34 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft
1 BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 68 ON PARAMETER SET 34 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 69 ON PARAMETER SET 35 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft

1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 70 ON PARAMETER SET 35 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	Average VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 71 ON PARAMETER SET 36 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 72 ON PARAMETER SET 36 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01

2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 73 ON PARAMETER SET 37 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m ³ /s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	Average VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 74 ON PARAMETER SET 37 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 75 ON PARAMETER SET 38 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01

3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 76 ON PARAMETER SET 38 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	Average VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 77 ON PARAMETER SET 39 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	Flow At EOR cfs	Average VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 78 ON PARAMETER SET 39 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	Flow At EOR cfs	Average VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01

4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01	
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 79 ON PARAMETER SET 40 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m ³ /s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft	
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01	
2 BT02 & BT-03		18.63	14.39	4.24	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01	
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01	
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01	
5 COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 80 ON PARAMETER SET 40 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH DIST km	TRAVEL LENGTH km	TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 81 ON PARAMETER SET 41 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH DIST km	TRAVEL LENGTH km	TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01

5 COTEAU WEIR TO SONIC WEIR 9.41 6.93 2.48 17.95 0.02141 0.00160 0.950 17.68 0.756 0.005 3.117 58.01

.....BEGIN SENSITIVITY RUN 82 ON PARAMETER SET 41 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH DIST km	LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 83 ON PARAMETER SET 42 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 84 ON PARAMETER SET 42 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 85 ON PARAMETER SET 43 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 86 ON PARAMETER SET 43 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	Flow at EOR cfs	Average velo fps	Avg depth ft	Avg width ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 87 ON PARAMETER SET 44 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	Flow at EOR cfs	Average velo fps	Avg depth ft	Avg width ft
1 BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2 BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3 BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4 GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5 COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 88 ON PARAMETER SET 44 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH	FLOW AT EOR	AVERAGE VELO	AVG DEPTH	AVG WIDTH
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 89 ON PARAMETER SET 45 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117

.....BEGIN SENSITIVITY RUN 90 ON PARAMETER SET 45 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN NO.	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117

.....BEGIN SENSITIVITY RUN 91 ON PARAMETER SET 46 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 15 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 92 ON PARAMETER SET 46 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 13 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	AVG	FLOW AT	AVERAGE	Avg	Avg
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH	EOR	VELO	DEPTH	WIDTH
			km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 93 ON PARAMETER SET 47 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04

UPSTREAM OF THE WEIR # 3(SONIC WEIR

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	AVG	FLOW AT	AVERAGE	Avg	Avg
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH	EOR	VELO	DEPTH	WIDTH
			km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 94 ON PARAMETER SET 47 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg Depth	Avg Width	Flow at EOR	Average Velo	Avg Depth	Avg Width
NO.		km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02	22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03	18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR	14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR	12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR	9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 95 ON PARAMETER SET 48 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
UPSTREAM OF THE WEIR # 3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	AVG	FLOW AT	AVERAGE	Avg	Avg
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH	EOR	VELO	DEPTH	WIDTH
			km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....BEGIN SENSITIVITY RUN 96 ON PARAMETER SET 48 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

UPPER BAYOU TERREBONNE MODEL CALIBRATION MODEL 8/17/04
 UPSTREAM OF THE WEIR # 3(SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH	NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	AVG	FLOW AT	AVERAGE	Avg	Avg
NO.			DIST	DIST	LENGTH	TIME	EOR	VELO	DEPTH	WIDTH	EOR	VELO	DEPTH	WIDTH
			km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1	BT01 & BT-02		22.03	18.63	3.40	40.02	0.01896	0.00098	0.400	16.46	0.669	0.003	1.312	54.01
2	BT02 & BT-03		18.63	14.39	4.24	10.76	0.04260	0.00456	0.370	17.68	1.504	0.015	1.214	58.01
3	BT03 TO GLASS SHOP WEIR		14.39	12.04	2.35	3.50	0.05570	0.00778	0.360	17.68	1.967	0.026	1.181	58.01
4	GLASS SHOP WEIR TO COTEAU WEIR		12.04	9.41	2.63	5.67	0.03472	0.00537	0.490	16.46	1.226	0.018	1.608	54.01
5	COTEAU WEIR TO SONIC WEIR		9.41	6.93	2.48	17.95	0.02141	0.00160	0.950	17.68	0.756	0.005	3.117	58.01

.....EXECUTION COMPLETED

**APPENDIX K2 – SENSITIVITY SUMMARY TABLE, GRAPHS, INPUT AND
OUTPUT FILE (LOWER TERREBONNE MODEL)**

LOWER TERREBONNE SENSITIVITY MODEL SUMMARY TABLE

SENSITIVITY ANALYSIS SUMMARY

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05 WEIR #3 TO THE ICWW

Plot 1 Base Model Minimum DO = 1.42

Parameter	% Parameter Change	Min D.O.	% D.O. Change	% Parameter Change	Min D.O.	% D.O. Change
Stream Reaeration	-30	0.31	-78.3	30	1.6	12.8
Benthal Demand	-30	1.6	12.8	30	0.64	-54.8
Initial Temperature	-2	1.6	12.8	2	1.02	-27.9
Headwater DO	-30	1.28	-9.5	30	1.43	0.7
Stream Depth	-30	1.55	9.1	30	1.32	-7.1
CBOD Aerobic Decay Rate	-30	1.52	7	30	1.33	-6
Stream Velocity	-30	1.5	5.7	30	1.37	-3.8
Non-Point Source CBOD	-30	1.48	4.6	30	1.36	-4.5
Headwater CBOD	-30	1.47	4	30	1.35	-4.7
Incremental DO	-30	1.38	-2.6	30	1.45	2.5
CBOD2 Aerobic Decay Rate	-30	1.44	1.6	30	1.4	-1.5
Incremental CBOD	-30	1.44	1.6	30	1.39	-1.8
NBOD Decay Rate	-30	1.44	1.3	30	1.4	-1.2
Stream Baseflow	-30	1.4	-1.2	30	1.42	0.3
CBOD Settling Rate	-30	1.4	-1.2	30	1.43	1.1
Headwater CBOD2	-30	1.43	0.9	30	1.41	-0.9
Headwater NBOD	-30	1.43	0.7	30	1.41	-0.6
Incremental Inflow	-30	1.41	-0.7	30	1.43	0.7
Incremental CBOD2	-30	1.42	0.4	30	1.41	-0.4
Non-Point Source BOD2	-30	1.42	0.4	30	1.41	-0.4
Non-Point Source NBOD	-30	1.42	0.4	30	1.41	-0.4
Incremental NBOD	-30	1.42	0.3	30	1.41	-0.3
Incremental Outflow	-30	1.42	-0.2	30	1.42	0.2
Headwater Flow	-30	1.42	-0.2	30	1.41	-0.4
Initial Salinity	-30	1.42	0.1	30	1.42	-0.1
NBOD Settling Rate	-30	1.42	-0.1	30	1.42	0.1
CBOD2 Settling Rate	-30	1.42	0	30	1.42	0
Tidal Range	-30	1.42	0	30	1.42	0
Algae/Chlorophyll Ratio	-30	1.42	0	30	1.42	0
Initial Chorophyll a	-30	1.42	0	30	1.42	0
Incremental Temperature	-30	1.42	0	30	1.42	0
Incremental Chlorophyll a	-30	1.42	0	30	1.42	0
Stream Dispersion	-30	1.42	0	30	1.42	0
Headwater Temperature	-2	1.42	0	2	1.42	0
Headwater Chlorophyll a	-30	1.42	0	30	1.42	0
Wasteload Flow	-30	1.42	0	30	1.42	0
Wasteload Temperature	-30	1.42	0	30	1.42	0
Wasteload DO	-30	1.42	0	30	1.42	0
Wasteload CBOD	-30	1.42	0	30	1.42	0

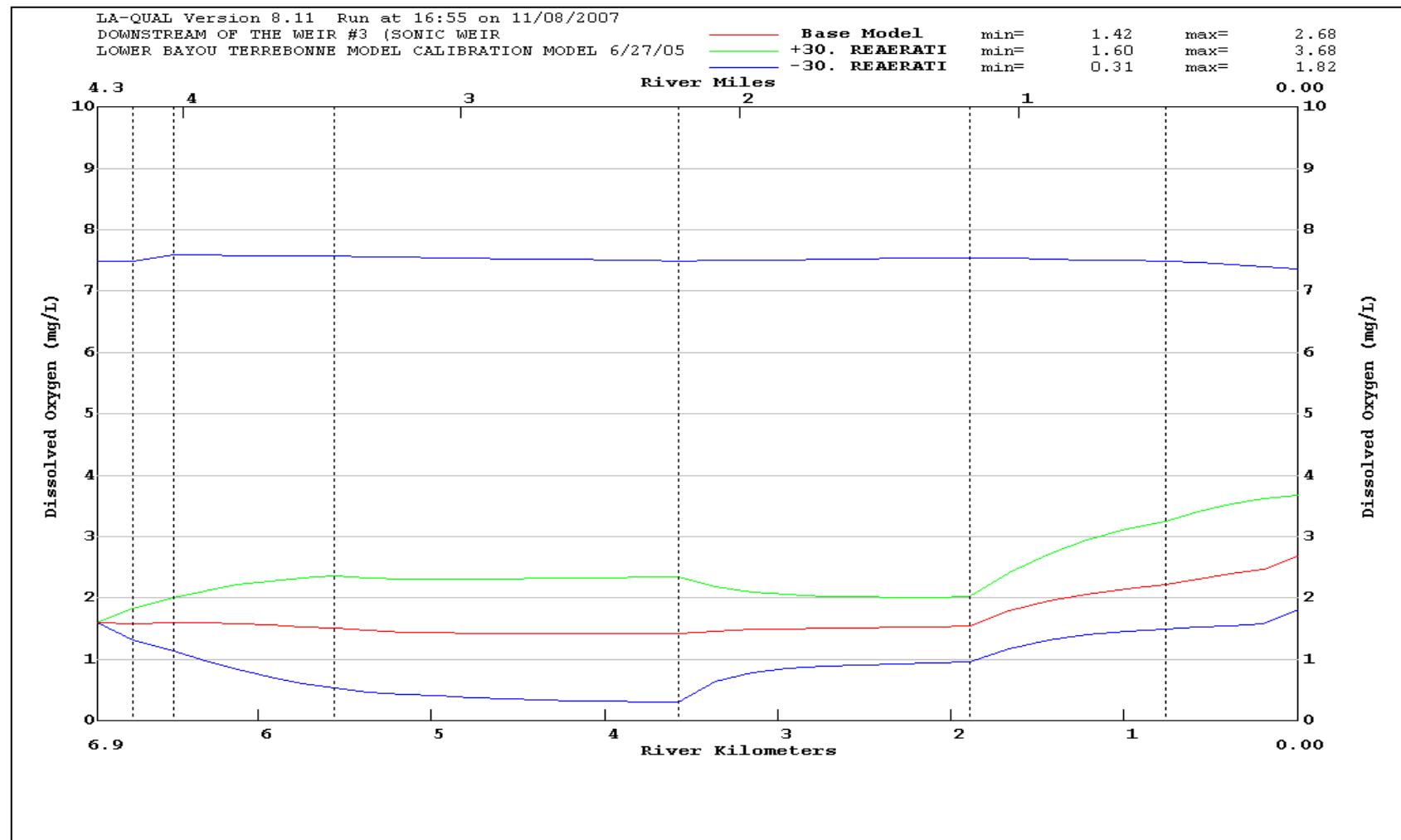
SENSITIVITY ANALYSIS SUMMARY

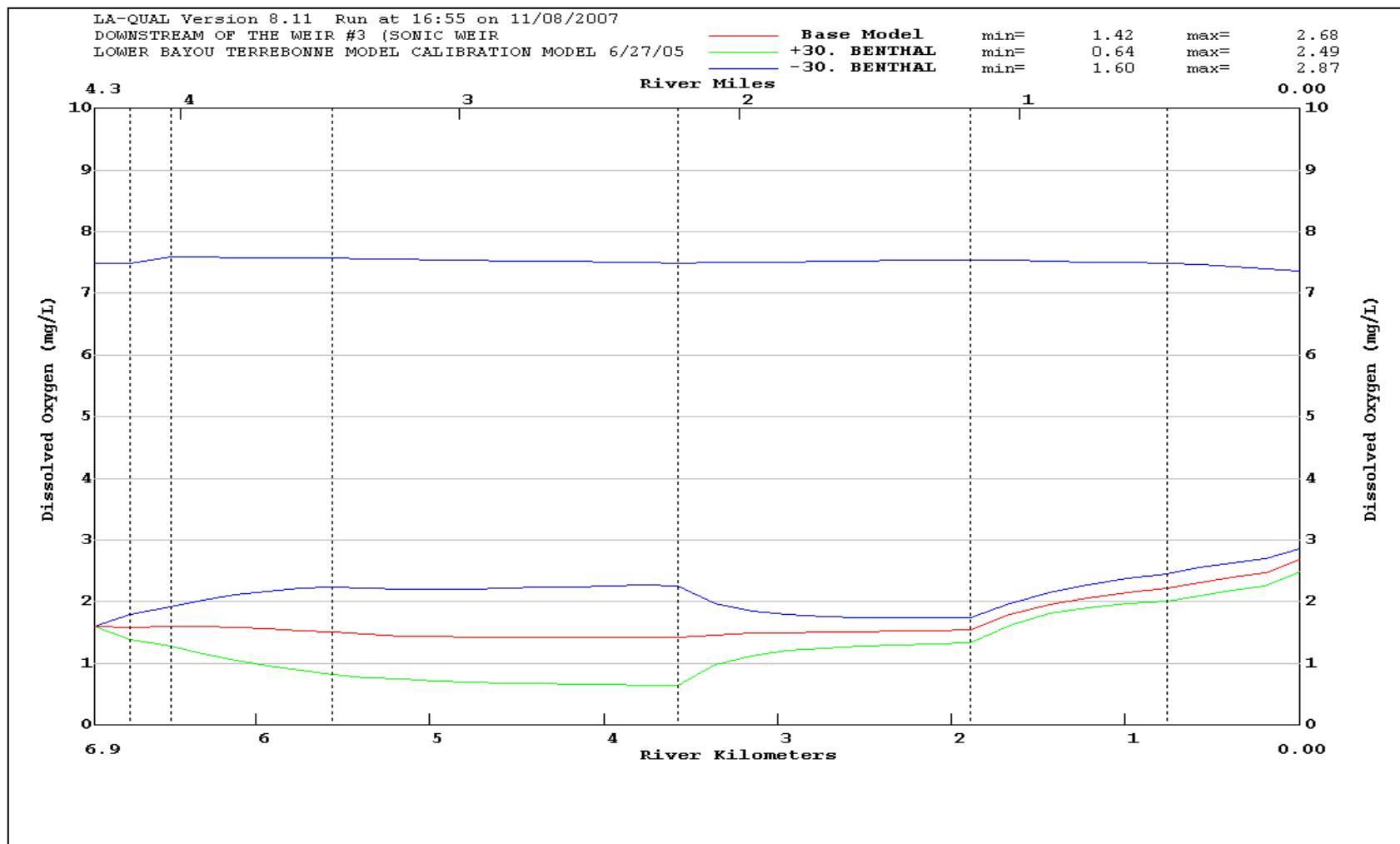
**LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
WEIR #3 TO THE ICWW**

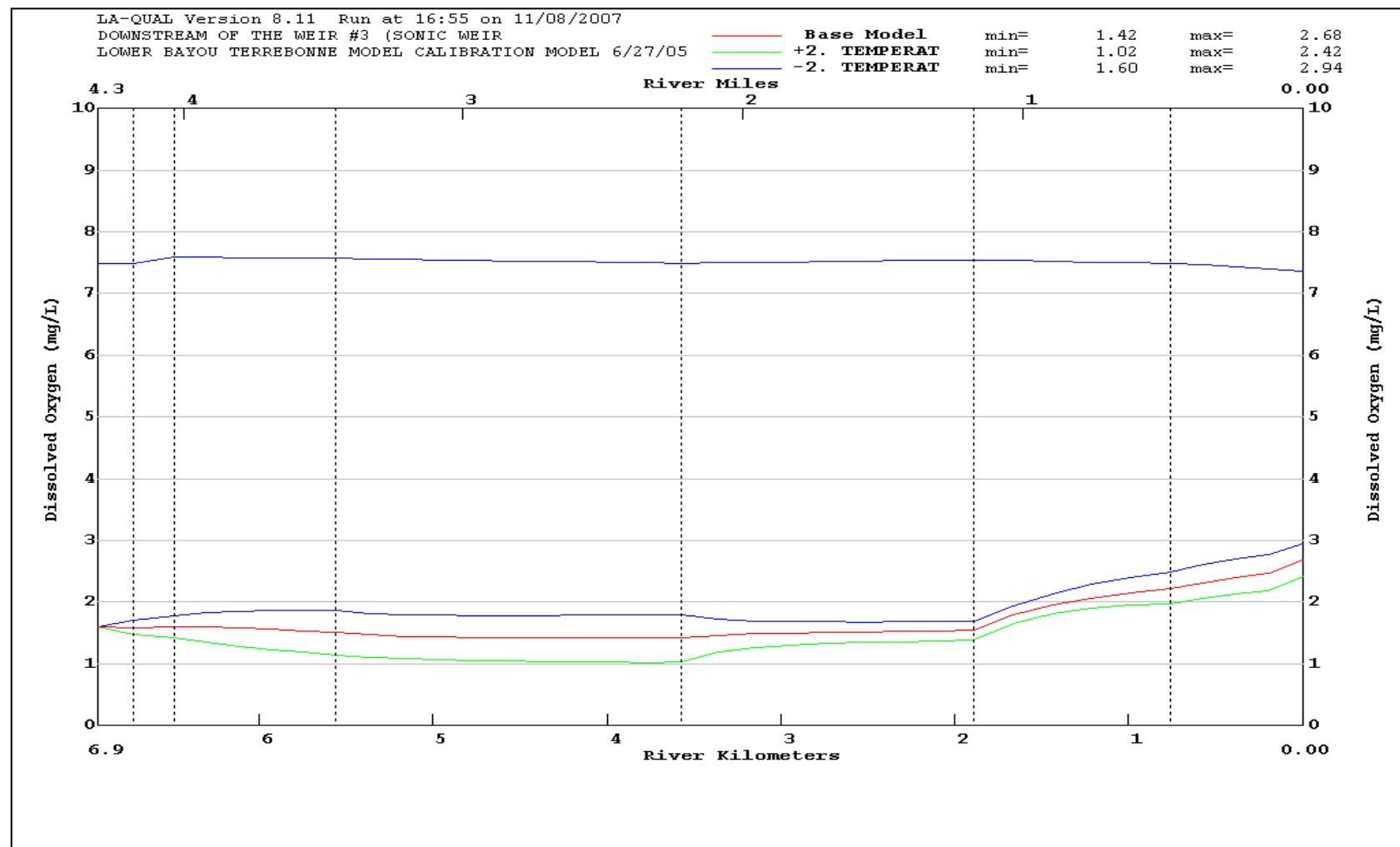
Plot 1 Base Model Minimum DO = 1.42

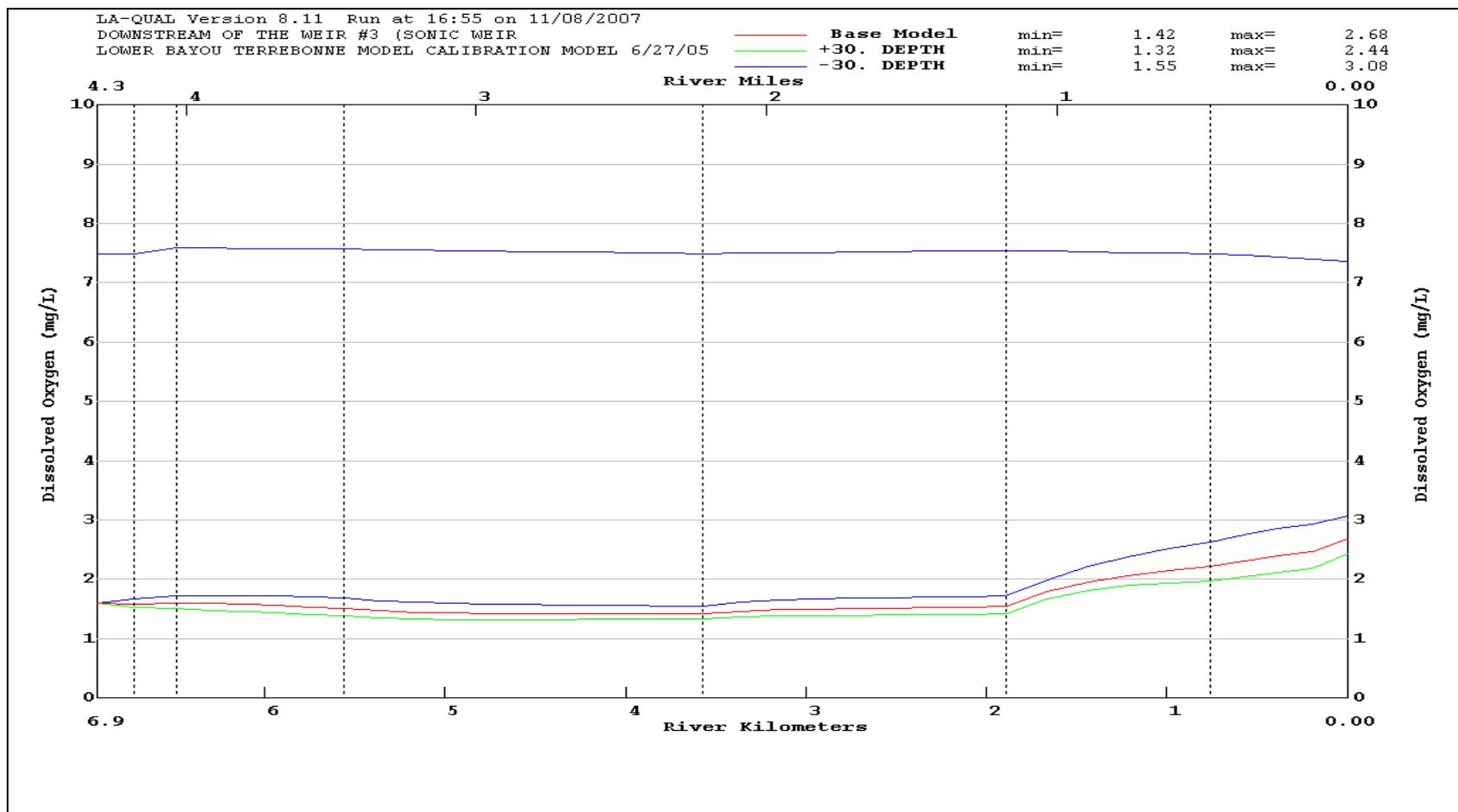
Parameter	% Parameter Change	Min D.O.	% D.O. Change	% Parameter Change	Min D.O.	% D.O. Change
Wasteload CBOD2	-30	1.42	0	30	1.42	0
Wasteload Chlorophyll a	-30	1.42	0	30	1.42	0
Wasteload NBOD	-30	1.42	0	30	1.42	0
Ocean Exchange Ratio	-30	1.42	0	30	1.42	0
Lower Boundary Temperature	-2	1.42	0	2	1.42	0
Lower Boundary DO	-30	1.42	0	30	1.42	0
Lower Boundary CBOD	-30	1.42	0	30	1.42	0
Lower Boundary CBOD2	-30	1.42	0	30	1.42	0
Lower Boundary Chlorophyll a	-30	1.42	0	30	1.42	0
Lower Boundary NBOD	-30	1.42	0	30	1.42	0

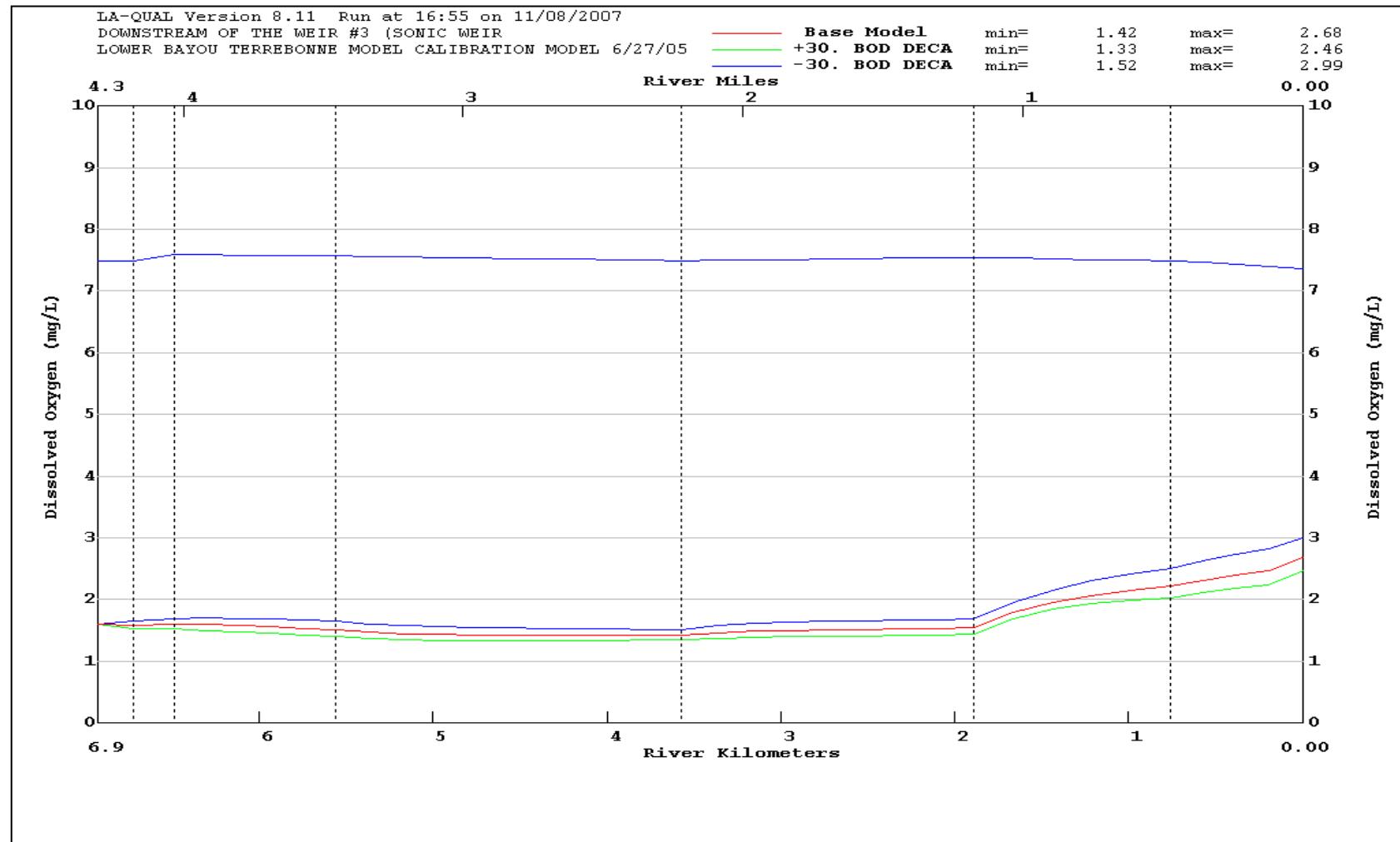
LOWER TERREBONNE SENSITIVITY MODEL GRAPHS











LOWER TERREBONNE SENSITIVITY MODEL INPUT FILE

TITLE01 LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
TITLE02 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR
! Modeled CBOD1, CBOD2, and NBOD; Used constant widths and depths; estimated
tidal flow
CONTROL YES METRIC UNITS
ENDATA01
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1
MODOPT07 YES BOD2
MODOPT08 YES NBOD OXYGEN DEMAND IN MG/L
MODOPT09 NO PHOSPHORUS
MODOPT10 NO CHLOROPHYLL A
MODOPT11 NO MACROPHYTES
MODOPT12 NO COLIFORM
MODOPT13 NO NONCONSERVATIVE MATERIAL = NBOD IN MG/L
ENDATA02
PROGRAM KL MINIMUM = 0.7
PROGRAM MAXIMUM ITERATION LIMIT = 200.
PROGRAM HYDRAULIC CALCULATION METHOD = 2.
PROGRAM TIDE HEIGHT = 0.13
PROGRAM TIDAL PERIOD = 25.0
PROGRAM DISPERSION = 2
PROGRAM EFFECTIVE BOD DUE TO ALGAE = 0.01
PROGRAM ALGAE OXYGEN PRODUCTION RATE = 0
PROGRAM INHIBITION CONTROL VALUE = 3
PROGRAM OCEAN EXCHANGE RATIO = 1.0
PROGRAM SETTLING RATE UNITS = 2
ENDATA03
ENDATA04
ENDATA05
ENDATA06
ENDATA07
! Reach data entered on 9/19/04; Added a single-element headwater reach above
Weir #3 10/27/04
! Removed the single element weir on 10/10/2007. Started model below the weir
REACH ID 1 BT Weir #3 to Bayou Cane 6.93 6.72 0.2100
REACH ID 2 BC Bayou Cane to BT-08 6.72 6.49 0.2300
REACH ID 3 BT BT-08 to BT-09 6.49 5.56 0.1860
REACH ID 4 BT BT-09 to BT-10 5.56 3.57 0.1990
REACH ID 5 BT BT-10 to BT-11 3.57 1.89 0.2100
REACH ID 6 BT BT-11 to BT-12 1.89 0.76 0.2260
REACH ID 7 BT BT-12 to ICWW 0.76 0.00 0.1900
ENDATA08
! Data entered 9/22/04
!
! Datatype 9 revised 9/24/2007; width and depth constants determined by the
! downstream site in each reach
HYDR-1 1 0 0 14.32 0 0 0.76 0 0.03
HYDR-1 2 0 0 14.32 0 0 0.87 0 0.03
HYDR-1 3 0 0 14.32 0 0 0.71 0 0.03
HYDR-1 4 0 0 14.63 0 0 0.88 0 0.03

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

HYDR-1	5	0	0	18.90	0	0	1.66	0	0.03
HYDR-1	6	0	0	22.86	0	0	1.37	0	0.03
HYDR-1	7	0	0	22.86	0	0	1.37	0	0.03

ENDATA09

! In the process of adjusting the dispersion data 10/8/2007; This area is tidal;
 ! set TRANGE and calibrated to dispersion and conservatives (best fit)
 ! by adjusting "a"; 10/12/07 - SET TRANGE values based on survey sites;
 ! set "b", "c", "d" to 0.833, 0, 1 based on LDEQ standard practice;
 ! calibrated "a" to measured dispersion values

!00000000111111112222222233333333444444444555555556666666677777777778

!2345678901234567890123456789012345678901234567890123456789012345678901234567890

	RCH	TRANGE	"a"	"b"	"c"	"d"
HYDR-2	1	0.69	18.00	0.833	0.00	1.00
HYDR-2	2	0.66	18.00	0.833	0.00	1.00
HYDR-2	3	0.62	18.00	0.833	0.00	1.00
HYDR-2	4	0.70	18.00	0.833	0.00	1.00
HYDR-2	5	0.77	18.00	0.833	0.00	1.00
HYDR-2	6	0.92	18.00	0.833	0.00	1.00
HYDR-2	7	0.92	18.00	0.833	0.00	1.00

ENDATA10

! Data entered on 9/22/04

! Initial conditions temp, sal, DO and chl a revised 10/2/07; revised 10/15/07

! to match site located at the upstream end of each reach

!0000000011111111222222223333333344444444455555555666666667777777778

!2345678901234567890123456789012345678901234567890123456789012345678901234567890

	TEMP	SAL	DO	CHL A			MACRO
INITIAL	1	30.43	0.20	1.60	0.00	0.000	10.1 0.0
INITIAL	2	30.43	0.20	2.85	0.00	0.000	10.1 0.0
INITIAL	3	29.69	0.17	4.42	0.00	0.000	15.5 0.0
INITIAL	4	29.88	0.11	2.18	0.00	0.000	26.9 0.0
INITIAL	5	30.45	0.21	2.01	0.00	0.000	10.7 0.0
INITIAL	6	30.06	0.16	1.50	0.00	0.000	9.8 0.0
INITIAL	7	30.45	0.20	1.93	0.00	0.000	12.0 0.0

ENDATA11

Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

```

! Initial data entered 9/22/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream
! end of each reach
!0000000011111111222222223333333344444444555555556666666677777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      REAERATION          SOD BOD1DEC SETT CON2SOD ANEARO BOD2DEC SETT CON2SOD ANEARO
COEF-1    1    19   0.0   0.0    0.0    2.0   0.31   0.0    0.0   0.03   0.05   0.0   0.0
COEF-1    2    19   0.0   0.0    0.0    2.0   0.24   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    3    19   0.0   0.0    0.0    2.2   0.22   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    4    19   0.0   0.0    0.0    2.2   0.20   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    5    19   0.0   0.0    0.0    0.8   0.41   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    6    19   0.0   0.0    0.0    0.1   0.31   0.05   0.0   0.0   0.03   0.05   0.0   0.0
COEF-1    7    19   0.0   0.0    0.0    0.0   0.31   0.05   0.0   0.0   0.03   0.05   0.0   0.0
ENDATA12
!
      Data entered 9/22/04
! Decay rates revised on 9/25/07 to coincide with values obtained at site located at the downstream
! end of each reach
!000000001111111122222222333333334444444455555555666666667777777778
!234567890123456789012345678901234567890123456789012345678901234567890
!
      NBODDEC NBODSETT
COEF-2    1    0.09  0.025   0.0   0.0   0.0   0.0
COEF-2    2    0.12  0.025   0.0   0.0   0.0   0.0
COEF-2    3    0.09  0.025   0.0   0.0   0.0   0.0
COEF-2    4    0.12  0.025   0.0   0.0   0.0   0.0
COEF-2    5    0.17  0.025   0.0   0.0   0.0   0.0
COEF-2    6    0.16  0.025   0.0   0.0   0.0   0.0
COEF-2    7    0.10  0.025   0.0   0.0   0.0   0.0
ENDATA13
ENDATA14
ENDATA15

```

```
! Incremental data input started on 10/2/2007; finito in 10/5/07
! Flow based on TOT and distance for Run 4 dye data
! WQ data for each reach set to the value obtained at the site
!      at the downstream end of each reach
! Temp, sal, cond, and DO the continuous monitor data used if
available
!      then insitu data used
! Salinity - calibrated to cont mon and insitu data
! Chlorides - calibrated to Lab data used
! Conductivity - calibrated to cont mon and insitu data
! BOD - Lab data used
! Data indicated residual influence of Bayou Cane, therefore WQ data
for
! Reach 2 obtained from BC01
!00000000111111112222222233333333444444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
!      R#      OUTFLOW     INFLOW      TEMP      SAL CONSERVI CONSERV2
INCR-1    1            0.00926    30.43     0.20     11.6   373.13
INCR-1    2            0.01015    29.95     0.10     10.5   275.89
INCR-1    3      -0.02758
INCR-1    4            0.03339    30.45     0.21     50.8   362.93
INCR-1    5            0.22       30.06     0.16     12.8   334.30
INCR-1    6      -0.00210
INCR-1    7      -0.00141
ENDATA16
!00000000111111112222222233333333444444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
!      R#      DO      BOD1      NBOD      NH3      NO2      BOD2
INCR-2    1        2.85      4.62      2.08
INCR-2    2        1.74      3.81      1.83
INCR-2    3
INCR-2    4        2.01      3.73      2.66      4.20
INCR-2    5        1.50      3.63      2.54      4.07
INCR-2    6
INCR-2    7
ENDATA17
!00000000111111112222222233333333444444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
!      R#      PHOS      CHLORA      COLI      NCM
INCR-3    1            10.1
INCR-3    2            5.2
INCR-3    3
INCR-3    4            10.7
INCR-3    5            9.8
INCR-3    6
INCR-3    7
ENDATA18
!00000000111111112222222233333333444444444555555556666666677
77777778
```

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

!2345678901234567890123456789012345678901234567890123456789012345678901
234567890
! BOD1 NBOD DO BOD2
NONPOINT 1 2.0 1.3 1.5
NONPOINT 2 0.5 1.9 2.0
NONPOINT 3 25.0 1.6 12.0
NONPOINT 4 17.0 10.0 5.0
NONPOINT 5 100.0 14.0 18.0
NONPOINT 6 87.0 42.0 16.0
NONPOINT 7 60.0 2.0 0.0
ENDATA19
! Data entered on 9/22/04; revised on 10/10/07; Headwater Q based on
dye study,
! cross sectional data and linear interpolation; Headwater WQ based
on site BT07
! HW DO set equal to BT07min + 1 = 0.6 + 1 = 1.60 mg/L
!0000000011111111222222223333333344444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
HDWTR-1 1 BT01 0 0.12890 30.43 0.200
11.6 373.13
ENDATA20
!00000000111111112222222233333333444444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
! DO BOD1 NBOD BOD2
HDWTR-2 1 1.60 4.62 2.08 0.0 0.0 4.07
ENDATA21
!00000000111111112222222233333333444444444555555556666666677
77777778
!234567890123456789012345678901234567890123456789012345678901
234567890
!
CHL A
HDWTR-3 1 0.0 10.1 0.0 0.0
ENDATA22
ENDATA23
ENDATA24
ENDATA25
ENDATA26
! LBC data entered 9/19/04
LOWER BC TEMPERATURE = 31.46
LOWER BC SALINITY = 0.10
LOWER BC CONSERVATIVE MATERIAL I = 18.5
LOWER BC CONSERVATIVE MATERIAL II = 270.97
LOWER BC DISSOLVED OXYGEN = 3.67
LOWER BC BOD1 = 4.21
LOWER BC BOD2 = 3.45
LOWER BC PHOSPHORUS = 0.00
LOWER BC CHLOROPHYLL A = 22.1
LOWER BC COLIFORM = 0.00
LOWER BC NBOD = 2.73
ENDATA27
ENDATA28
SENSITIV DEPTH -30 30

SENSITIV BASEFLOW -30 30
SENSITIV REAERATI -30 30
SENSITIV VELOCITY -30 30
SENSITIV BOD DECA -30 30
SENSITIV BOD SETT -30 30
SENSITIV BOD2 DEC -30 30
SENSITIV BOD2 SET -30 30
SENSITIV TRANGE -30 30
SENSITIV ARATIO -30 30
SENSITIV NBOD DEC -30 30
SENSITIV NBOD SET -30 30
SENSITIV BENTHAL -30 30
SENSITIV TEMPERAT -2 2
SENSITIV SALINITY -30 30
SENSITIV CHLOR A -30 30
SENSITIV INC INFL -30 30
SENSITIV INC OUTF -30 30
SENSITIV INC TEMP -30 30
SENSITIV INC DO -30 30
SENSITIV INC BOD -30 30
SENSITIV INC BOD2 -30 30
SENSITIV INC CHLO -30 30
SENSITIV INC NBOD -30 30
SENSITIV DISPERSI -30 30
SENSITIV HDW FLOW -30 30
SENSITIV HDW TEMP -2 2
SENSITIV HDW DO -30 30
SENSITIV HDW BOD -30 30
SENSITIV HDW BOD2 -30 30
SENSITIV HDW CHLO -30 30
SENSITIV HDW NBOD -30 30
SENSITIV WSL FLOW -30 30
SENSITIV WSL TEMP -30 30
SENSITIV WSL DO -30 30
SENSITIV WSL BOD -30 30
SENSITIV WSL BOD2 -30 30
SENSITIV WSL CHLO -30 30
SENSITIV WSL NBOD -30 30
SENSITIV OXR -30 30
SENSITIV LBC TEMP -2 2
SENSITIV LBC DO -30 30
SENSITIV LBC BOD -30 30
SENSITIV LBC BOD2 -30 30
SENSITIV LBC CHLO -30 30
SENSITIV LBC NBOD -30 30
SENSITIV NPS BOD -30 30
SENSITIV NPS BOD2 -30 30
SENSITIV NPS NBOD -30 30
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 7
PLOT RCH 1 2 3 4 5 6 7
ENDATA30
OVERLAY 1 LowerBTCalOverlay.txt
ENDATA31

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

LOWER TERREBONNE SENSITIVITY MODEL OUTPUT FILE

LA-QUAL Version 8.11

Louisiana Department of Environmental Quality

Input file is C:\AA_DAILY WORKING FOLDER\AA_TRANSFER BTERR DATASET\LAQUAL CAL REVIEW_09182007\Rev Sensitivity\Based on Calibration\LowBTerrCalSensi7R_incrQ.txt
Output produced at 15:32 on 10/31/2007

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE CONTROL TITLES

TITLE01 LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05

TITLE02 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR

CONTROL YES METRIC UNITS

ENDATA01

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE MODEL OPTION

MODOPT01 NO TEMPERATURE

MODOPT02 NO SALINITY

MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L

MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L

MODOPT05 YES DISSOLVED OXYGEN

MODOPT06 YES BOD1

MODOPT07 YES BOD2

MODOPT08 YES NBOD OXYGEN DEMAND IN MG/L

MODOPT09 NO PHOSPHORUS

MODOPT10 NO CHLOROPHYLL A

MODOPT11 NO MACROPHYTES

MODOPT12 NO COLIFORM

MODOPT13 NO NONCONSERVATIVE MATERIAL = NBOD IN MG/L

ENDATA02

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
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Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

PROGRAM	KL MINIMUM	=	0.70000 meters/day
PROGRAM	MAXIMUM ITERATION LIMIT	=	200.00000
PROGRAM	HYDRAULIC CALCULATION METHOD	=	2.00000 (widths and depths)
PROGRAM	TIDE HEIGHT	=	0.13000 meters
PROGRAM	TIDAL PERIOD	=	25.00000 hours
PROGRAM	DISPERSION	=	2.00000 (values entered as a function of D,Q,Vtidal)
PROGRAM	EFFECTIVE BOD DUE TO ALGAE	=	0.01000 mg/L BOD per ug/L chl a
PROGRAM	ALGAE OXYGEN PRODUCTION RATE	=	0.00000 mg O/ug chl a/day
PROGRAM	INHIBITION CONTROL VALUE	=	3.00000 (inhibit all rates but SOD)
PROGRAM	OCEAN EXCHANGE RATIO	=	1.00000
PROGRAM	SETTLING RATE UNITS	=	2.00000 (values entered as per day)
ENDATA03			

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE	RATE CODE	THETA VALUE
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ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
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ENDATA05

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

ENDATA06

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
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ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
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Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

REACH ID	1	BT	Weir #3 to Bayou Cane	6.93	TO	6.72	0.2100	0.21	1	1	1
REACH ID	2	BC	Bayou Cane to BT-08	6.72	TO	6.49	0.2300	0.23	1	2	2
REACH ID	3	BT	BT-08 to BT-09	6.49	TO	5.56	0.1860	0.93	5	3	7
REACH ID	4	BT	BT-09 to BT-10	5.56	TO	3.57	0.1990	1.99	10	8	17
REACH ID	5	BT	BT-10 to BT-11	3.57	TO	1.89	0.2100	1.68	8	18	25
REACH ID	6	BT	BT-11 to BT-12	1.89	TO	0.76	0.2260	1.13	5	26	30
REACH ID	7	BT	BT-12 to ICWW	0.76	TO	0.00	0.1900	0.76	4	31	34
ENDATA08											

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1		1	BT	0.000	0.000	14.320	0.000	0.000	0.760	0.00000	0.030
HYDR-1		2	BC	0.000	0.000	14.320	0.000	0.000	0.870	0.00000	0.030
HYDR-1		3	BT	0.000	0.000	14.320	0.000	0.000	0.710	0.00000	0.030
HYDR-1		4	BT	0.000	0.000	14.630	0.000	0.000	0.880	0.00000	0.030
HYDR-1		5	BT	0.000	0.000	18.900	0.000	0.000	1.660	0.00000	0.030
HYDR-1		6	BT	0.000	0.000	22.860	0.000	0.000	1.370	0.00000	0.030
HYDR-1		7	BT	0.000	0.000	22.860	0.000	0.000	1.370	0.00000	0.030
ENDATA09											

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"			
HYDR		1	BT	0.69	18.000	0.833	0.000	1.000			
HYDR		2	BC	0.66	18.000	0.833	0.000	1.000			
HYDR		3	BT	0.62	18.000	0.833	0.000	1.000			
HYDR		4	BT	0.70	18.000	0.833	0.000	1.000			
HYDR		5	BT	0.77	18.000	0.833	0.000	1.000			
HYDR		6	BT	0.92	18.000	0.833	0.000	1.000			
HYDR		7	BT	0.92	18.000	0.833	0.000	1.000			
ENDATA10											

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD	TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
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Bayou Terrebonne Watershed TMDL

Subsegment 120301

Originated: March 19, 2008

INITIAL	1	BT	30.43	0.20	1.60	0.00	0.00	0.00	10.10	0.00
INITIAL	2	BC	30.43	0.20	2.85	0.00	0.00	0.00	10.10	0.00
INITIAL	3	BT	29.69	0.17	4.42	0.00	0.00	0.00	15.50	0.00
INITIAL	4	BT	29.88	0.11	2.18	0.00	0.00	0.00	26.90	0.00
INITIAL	5	BT	30.45	0.21	2.01	0.00	0.00	0.00	10.70	0.00
INITIAL	6	BT	30.06	0.16	1.50	0.00	0.00	0.00	9.80	0.00
INITIAL	7	BT	30.45	0.20	1.93	0.00	0.00	0.00	12.00	0.00
ENDATA11										

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m ² /d	BOD DECAY per day	BOD SETT m/d	BOD CONV TO SOD	ANAER BOD2 DECAY per day	ANAER BOD2 DECAY per day	BOD2 CONV TO SOD	ANAER BOD2 DECAY per day	
COEF-1	1	BT	19 OWENS <1.8 F	0.000	0.000	0.000	2.000	0.310	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	2	BC	19 OWENS <1.8 F	0.000	0.000	0.000	2.000	0.240	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	3	BT	19 OWENS <1.8 F	0.000	0.000	0.000	2.200	0.220	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	4	BT	19 OWENS <1.8 F	0.000	0.000	0.000	2.200	0.200	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	5	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.800	0.410	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	6	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.100	0.310	0.050	0.000	0.000	0.030	0.050	0.000	0.000
COEF-1	7	BT	19 OWENS <1.8 F	0.000	0.000	0.000	0.000	0.310	0.050	0.000	0.000	0.030	0.050	0.000	0.000

ENDATA12

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD DECA	NBOD SETT	ORGN TO NH3	CONV SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1	BT	0.090	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	2	BC	0.120	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	3	BT	0.090	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	4	BT	0.120	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	5	BT	0.170	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	6	BT	0.160	0.025	0.000		0.000	0.000	0.000	0.000
COEF-2	7	BT	0.100	0.025	0.000		0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING
ENDATA14											

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
ENDATA15						

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD	TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1		1	BT	0.00000	0.00926	30.43	0.20	11.60	373.13	0.04410	0.00000
INCR-1		2	BC	0.00000	0.01015	29.95	0.10	10.50	275.89	0.04413	0.00000
INCR-1		3	BT	-0.02758	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.02966
INCR-1		4	BT	0.00000	0.03339	30.45	0.21	50.80	362.93	0.01678	0.00000
INCR-1		5	BT	0.00000	0.22000	30.06	0.16	12.80	334.30	0.13095	0.00000
INCR-1		6	BT	-0.00210	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00186
INCR-1		7	BT	-0.00141	0.00000	0.00	0.00	0.00	0.00	0.00000	-0.00186

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD	TYPE	REACH	ID	DO	BOD	NBOD	BOD#2		
INCR-2		1	BT	2.85	4.62	2.08	0.00	0.00	4.07
INCR-2		2	BC	1.74	3.81	1.83	0.00	0.00	4.42
INCR-2		3	BT	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2		4	BT	2.01	3.73	2.66	0.00	0.00	4.20
INCR-2		5	BT	1.50	3.63	2.54	0.00	0.00	4.07
INCR-2		6	BT	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2		7	BT	0.00	0.00	0.00	0.00	0.00	0.00

ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD	TYPE	REACH	ID	PHOS	CHL A	COLI	NCM
INCR-3		1	BT	0.00	10.10	0.00	0.00
INCR-3		2	BC	0.00	5.20	0.00	0.00
INCR-3		3	BT	0.00	0.00	0.00	0.00
INCR-3		4	BT	0.00	10.70	0.00	0.00
INCR-3		5	BT	0.00	9.80	0.00	0.00
INCR-3		6	BT	0.00	0.00	0.00	0.00
INCR-3		7	BT	0.00	0.00	0.00	0.00

ENDATA18

Bayou Terrebonne Watershed TMDL
 Subsegment 120301
 Originated: March 19, 2008

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD	TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT		1	BT	2.00	1.30	0.00	0.00	0.00	1.50
NONPOINT		2	BC	0.50	1.90	0.00	0.00	0.00	2.00
NONPOINT		3	BT	25.00	1.60	0.00	0.00	0.00	12.00
NONPOINT		4	BT	17.00	10.00	0.00	0.00	0.00	5.00
NONPOINT		5	BT	100.00	14.00	0.00	0.00	0.00	18.00
NONPOINT		6	BT	87.00	42.00	0.00	0.00	0.00	16.00
NONPOINT		7	BT	60.00	2.00	0.00	0.00	0.00	0.00
ENDATA19									

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD	TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II IN MG/L
HDWTR-1		1	BT01	0	0.12890	4.552	30.43	0.20	11.600	373.130
ENDATA20										

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD	TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L			BOD#2 mg/L
HDWTR-2		1	BT01	1.60	4.62	2.08	0.00	0.00	4.07
ENDATA21									

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD	TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
HDWTR-3		1	BT01	0.00	10.10	0.00	0.00
ENDATA22							

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD	TYPE	JUNCTION	UPSTRM	RIVER	NAME
------	------	----------	--------	-------	------

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

ELEMENT ELEMENT KILOM

ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD	TYPE	ELEMENT	RKILO	NAME	FLOW m³/s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II IN MG/L
------	------	---------	-------	------	--------------	-------------	-------------	---------------	--------------	--------------	------------------

ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD	TYPE	ELEMENT	NAME	DO	BOD	% BOD RMVL	NBOD	% NITRIF	
	BOD#2			mg/L	mg/L		mg/L	mg/L	mg/L

ENDATA25

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD	TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
------	------	---------	------	--------------	---------------	--------------	-------------

ENDATA26

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE CONSTITUENT CONCENTRATION

LOWER BC	TEMPERATURE	=	31.460	deg C
LOWER BC	SALINITY	=	0.100	ppt
LOWER BC	CONSERVATIVE MATERIAL I	=	18.500	MG/L
LOWER BC	CONSERVATIVE MATERIAL II	=	270.970	IN MG/L
LOWER BC	DISSOLVED OXYGEN	=	3.670	mg/L
LOWER BC	BOD1	=	4.210	mg/L
LOWER BC	BOD2	=	3.450	mg/L
LOWER BC	PHOSPHORUS	=	0.000	mg/L
LOWER BC	CHLOROPHYLL A	=	22.100	µg/L
LOWER BC	COLIFORM	=	0.000	#/100 mL
LOWER BC	NBOD	=	2.730	mg/L

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

ENDATA27

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD	TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
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ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD	TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
SENSITIV		DEPTH	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		BASEFLOW	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		REAERATI	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		VELOCITY	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		BOD DECA	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		BOD SETT	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		BOD2 DEC	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		BOD2 SET	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		TRANGE	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		ARATIO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		NBOD DEC	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		NBOD SET	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		BENTHAL	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		TEMPERAT	-2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		SALINITY	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		CHLOR A	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		INC INFL	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		INC OUTF	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		INC TEMP	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		INC DO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		INC BOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		INC BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		INC CHLO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		INC NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		DISPERSI	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		HDW FLOW	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		HDW TEMP	-2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		HDW DO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV		HDW BOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

SENSITIV	HDW BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW CHLO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL FLOW	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL TEMP	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL DO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL BOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL CHLO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	OXR	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC TEMP	-2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC DO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC BOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC CHLO	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NPS BOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NPS BOD2	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NPS NBOD	-30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0

ENDATA29

\$\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 7
PLOT RCH 1 2 3 4 5 6 7
ENDATA30

\$\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

OVERLAY 1 LowerBTCalOverlay.txt
ENDATA31

.....NO ERRORS DETECTED IN INPUT DATA
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
.....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 21

FINAL REPORT BT01
 REACH NO. 1 Weir #3 to Bayou Cane

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
1	HDWTR	0.12890	30.43	0.20	11.60	373.13	1.60	4.52	4.07	4.62	4.07	2.08	0.00	0.00	0.00	10.10	0.00	0.00
EACH	INCR	0.00926	30.43	0.20	11.60	373.13	2.85	4.62	4.07			2.08	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	6.93	6.72	0.13816	0.0	0.01269	0.19	0.76	14.32	2285.47	3007.20	10.88	269.75	0.001	0.008	0.013
TOT						0.19			2285.47	3007.20					
AVG					0.0127		0.76	14.32							
CUM						0.19									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	ABOD#1 SETT 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	ABOD#2 SETT 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d
1	6.720	7.49	1.12	0.40	0.06	0.00	0.04	0.06	0.00	3.86	3.86	3.86	*	*	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AVG	20	DEG C RATE	0.92	0.31	0.05	0.00	0.03	0.05	0.00	2.00					0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
1	6.720	30.43	0.20	11.60	373.10	1.59	4.31	4.12	4.41	4.12	2.15	0.00	0.00	0.00	0.00	10.10	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 2 Bayou Cane to BT-08

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
2	UPR RCH	0.13816	30.43	0.20	11.60	373.10	1.59	4.31	4.12	4.41	4.12	2.15	0.00	0.00	0.00	10.10	0.00	0.00
EACH	INCR	0.01015	29.95	0.10	10.50	275.89	1.74	3.81	4.42			1.83	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
2	6.72	6.49	0.14831	0.0	0.01190	0.22	0.87	14.32	2865.43	3293.60	12.46	552.34	0.001	0.016	0.012
TOT AVG CUM					0.0119		0.22	0.87	14.32	2865.43	3293.60		12.46		
					0.42										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST mg/L	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d
2	6.490	7.59	0.96	0.30	0.06	0.00	0.04	0.06	0.00	3.68	3.68	3.68	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE	0.80	0.24	0.05	0.00	0.03	0.05	0.00	2.00				0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
*	g/m ² /d		**	mg/L/day																			

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
2	6.490	29.69	0.17	11.52	366.48	1.60	3.99	4.20	4.15	4.20	2.23	0.00	0.00	0.00	0.00	15.50	0.00	0.	0.00

FINAL REPORT REACH NO. 3 BT01
 BT-08 to BT-09

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A μg/L	MACRO #/100mL	COLI	NCM MG/L
3 EACH	UPR RCH INCR	0.14831 -0.00552	29.69	0.17	11.52	366.48	1.60	3.99	4.20	4.15	4.20	2.23	0.00	0.00	0.00	15.50	0.00	0.00	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
3	6.49	6.30	0.14279	0.0	0.01404	0.15	0.71	14.32	1891.10	2663.52	10.17	767.02	0.002	0.023	0.014
4	6.30	6.12	0.13728	0.0	0.01350	0.16	0.71	14.32	1891.10	2663.52	10.17	981.70	0.002	0.029	0.014

Bayou Terrebonne Watershed TMDL
Subsegment 120301
Originated: March 19, 2008

5	6.12	5.93	0.13176	0.0	0.01296	0.17	0.71	14.32	1891.10	2663.52	10.17	1196.38	0.003	0.035	0.013
6	5.93	5.75	0.12625	0.0	0.01242	0.17	0.71	14.32	1891.10	2663.52	10.17	1411.06	0.003	0.042	0.012
7	5.75	5.56	0.12073	0.0	0.01187	0.18	0.71	14.32	1891.10	2663.52	10.17	1625.74	0.004	0.048	0.012
TOT						0.83			9455.50	13317.60					
Avg					0.0129		0.71	14.32			10.17				
Cum					1.25										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d	
3	6.304	7.59	1.18	0.27	0.06	0.00	0.04	0.06	0.00	4.06	4.06	4.06	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	6.118	7.58	1.18	0.27	0.06	0.00	0.04	0.06	0.00	4.07	4.07	4.07	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	5.932	7.58	1.18	0.27	0.06	0.00	0.04	0.06	0.00	4.08	4.08	4.08	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	5.746	7.57	1.18	0.26	0.06	0.00	0.04	0.06	0.00	4.09	4.09	4.09	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	5.560	7.57	1.18	0.26	0.06	0.00	0.04	0.06	0.00	4.10	4.10	4.10	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE		0.99	0.22	0.05	0.00	0.03	0.05	0.00	2.20			0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
3	6.304	29.73	0.16	11.52	366.48	1.59	4.18	4.32	4.35	4.32	2.22	0.00	0.00	0.00	17.78	0.00	0.	0.00	
4	6.118	29.77	0.15	11.52	366.48	1.58	4.36	4.45	4.56	4.45	2.22	0.00	0.00	0.00	20.06	0.00	0.	0.00	
5	5.932	29.80	0.13	11.52	366.48	1.56	4.54	4.58	4.76	4.58	2.22	0.00	0.00	0.00	22.34	0.00	0.	0.00	
6	5.746	29.84	0.12	11.53	366.48	1.53	4.72	4.71	4.97	4.71	2.22	0.00	0.00	0.00	24.62	0.00	0.	0.00	
7	5.560	29.88	0.11	11.55	366.47	1.51	4.90	4.84	5.17	4.84	2.22	0.00	0.00	0.00	26.90	0.00	0.	0.00	

FINAL REPORT BT01
REACH NO. 4 BT-09 to BT-10

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A μg/L	MACRO #/100mL	COLI MG/L	NCM MG/L
8	UPR RCH	0.12073	29.88	0.11	11.55	366.47	1.51	4.90	4.84	5.17	4.84	2.22	0.00	0.00	0.00	26.90	0.00	0.00	0.00
EACH	INCR	0.00334	30.45	0.21	50.80	362.93	2.01	3.73	4.20			2.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s

8	5.56	5.36	0.12407	0.0	0.00964	0.24	0.88	14.63	2562.01	2911.37	12.87	1890.67	0.003	0.053	0.010
9	5.36	5.16	0.12741	0.0	0.00990	0.23	0.88	14.63	2562.01	2911.37	12.87	2155.60	0.004	0.060	0.010
10	5.16	4.96	0.13075	0.0	0.01016	0.23	0.88	14.63	2562.01	2911.37	12.87	2420.54	0.004	0.068	0.010
11	4.96	4.76	0.13409	0.0	0.01041	0.22	0.88	14.63	2562.01	2911.37	12.87	2685.47	0.005	0.075	0.010
12	4.76	4.57	0.13743	0.0	0.01067	0.22	0.88	14.63	2562.01	2911.37	12.87	2950.41	0.005	0.082	0.011
13	4.57	4.37	0.14076	0.0	0.01093	0.21	0.88	14.63	2562.01	2911.37	12.87	3215.34	0.006	0.090	0.011
14	4.37	4.17	0.14410	0.0	0.01119	0.21	0.88	14.63	2562.01	2911.37	12.87	3480.28	0.006	0.097	0.011
15	4.17	3.97	0.14744	0.0	0.01145	0.20	0.88	14.63	2562.01	2911.37	12.87	3745.21	0.006	0.105	0.011
16	3.97	3.77	0.15078	0.0	0.01171	0.20	0.88	14.63	2562.01	2911.37	12.87	4010.15	0.007	0.112	0.012
17	3.77	3.57	0.15412	0.0	0.01197	0.19	0.88	14.63	2562.01	2911.37	12.87	4275.08	0.007	0.119	0.012
TOT						2.14			25620.06	29113.70					
AVG						0.0108			0.88	14.63					
CUM						3.39					12.87				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE 1/da	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da	
8	5.361	7.56	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.11	4.11	4.11	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	5.162	7.55	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.13	4.13	4.13	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10	4.963	7.55	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.14	4.14	4.14	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11	4.764	7.54	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.16	4.16	4.16	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12	4.565	7.53	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.17	4.17	4.17	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13	4.366	7.52	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.19	4.19	4.19	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14	4.167	7.51	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.20	4.20	4.20	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15	3.968	7.51	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.22	4.22	4.22	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
16	3.769	7.50	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.23	4.23	4.23	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
17	3.570	7.49	0.96	0.23	0.06	0.00	0.03	0.06	0.00	4.25	4.25	4.25	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
AVG	20	DEG C RATE		0.80	0.20	0.05	0.00	0.03	0.05	0.00	2.20			0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM MG/L
8	5.361	29.94	0.12	12.61	366.38	1.47	4.69	4.76	4.95	4.76	2.28	0.00	0.00	0.00	25.28	0.00	0.	0.00	
9	5.162	29.99	0.13	13.61	366.29	1.45	4.52	4.69	4.75	4.69	2.34	0.00	0.00	0.00	23.66	0.00	0.	0.00	
10	4.963	30.05	0.14	14.56	366.20	1.43	4.36	4.62	4.58	4.62	2.39	0.00	0.00	0.00	22.04	0.00	0.	0.00	
11	4.764	30.11	0.15	15.47	366.12	1.43	4.22	4.55	4.42	4.55	2.44	0.00	0.00	0.00	20.42	0.00	0.	0.00	
12	4.565	30.17	0.16	16.33	366.04	1.42	4.10	4.49	4.28	4.49	2.48	0.00	0.00	0.00	18.80	0.00	0.	0.00	
13	4.366	30.22	0.17	17.15	365.97	1.42	3.98	4.43	4.16	4.43	2.53	0.00	0.00	0.00	17.18	0.00	0.	0.00	
14	4.167	30.28	0.18	17.93	365.90	1.42	3.88</												

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
18 EACH	UPR RCH	0.15412	30.45	0.21	19.96	365.38	1.42	3.63	4.24	3.74	4.24	2.67	0.00	0.00	0.00	10.70	0.00	0.00
	INCR	0.02750	30.06	0.16	12.80	334.30	1.50	3.63	4.07			2.54	0.00	0.00	0.00	0.00	0.00	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
18	3.57	3.36	0.18162	0.0	0.00579	0.42	1.66	18.90	6588.54	3969.00	31.37	4672.38	0.003	0.091	0.006
19	3.36	3.15	0.20912	0.0	0.00667	0.36	1.66	18.90	6588.54	3969.00	31.37	5069.67	0.004	0.099	0.007
20	3.15	2.94	0.23662	0.0	0.00754	0.32	1.66	18.90	6588.54	3969.00	31.37	5466.97	0.004	0.106	0.008
21	2.94	2.73	0.26412	0.0	0.00842	0.29	1.66	18.90	6588.54	3969.00	31.37	5864.27	0.004	0.114	0.008
22	2.73	2.52	0.29162	0.0	0.00929	0.26	1.66	18.90	6588.54	3969.00	31.37	6261.57	0.004	0.122	0.009
23	2.52	2.31	0.31912	0.0	0.01017	0.24	1.66	18.90	6588.54	3969.00	31.37	6658.86	0.005	0.129	0.010
24	2.31	2.10	0.34662	0.0	0.01105	0.22	1.66	18.90	6588.54	3969.00	31.37	7056.16	0.005	0.137	0.011
25	2.10	1.89	0.37412	0.0	0.01192	0.20	1.66	18.90	6588.54	3969.00	31.37	7453.46	0.005	0.145	0.012
TOT					2.32				52708.32			31752.00			
AVG					0.0084				1.66			31.37			
CUM					5.71										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	ABOD#1 SETT 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE 1/d	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d
18	3.360	7.50	0.51	0.48	0.06	0.00	0.04	0.06	0.00	1.54	1.54	1.54	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
19	3.150	7.50	0.51	0.49	0.06	0.00	0.04	0.06	0.00	1.54	1.54	1.54	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
20	2.940	7.51	0.51	0.49	0.06	0.00	0.04	0.06	0.00	1.53	1.53	1.53	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
21	2.730	7.52	0.51	0.49	0.06	0.00	0.04	0.06	0.00	1.53	1.53	1.53	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
22	2.520	7.52	0.51	0.50	0.06	0.00	0.04	0.06	0.00	1.52	1.52	1.52	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
23	2.310	7.53	0.51	0.50	0.06	0.00	0.04	0.06	0.00	1.52	1.52	1.52	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
24	2.100	7.54	0.51	0.50	0.06	0.00	0.04	0.06	0.00	1.51	1.51	1.51	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
25	1.890	7.54	0.51	0.50	0.06	0.00	0.04	0.06	0.00	1.51	1.51	1.51	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Avg	20	DEG C	RATE	0.42	0.41	0.05	0.00	0.03	0.05	0.00	0.80			0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
18	3.360	30.40	0.20	18.88	360.68	1.46	3.60	4.18	3.71	4.18	2.65	0.00	0.00	0.00	0.00	10.59	0.00	0.	0.00

19	3.150	30.35	0.20	18.09	357.25	1.48	3.58	4.14	3.69	4.14	2.62	0.00	0.00	0.00	0.00	10.48	0.00	0.	0.00
20	2.940	30.30	0.19	17.48	354.61	1.50	3.56	4.11	3.66	4.11	2.60	0.00	0.00	0.00	0.00	10.36	0.00	0.	0.00
21	2.730	30.26	0.19	16.99	352.51	1.51	3.55	4.09	3.65	4.09	2.59	0.00	0.00	0.00	0.00	10.25	0.00	0.	0.00
22	2.520	30.21	0.18	16.60	350.81	1.52	3.53	4.07	3.63	4.07	2.58	0.00	0.00	0.00	0.00	10.14	0.00	0.	0.00
23	2.310	30.16	0.17	16.28	349.39	1.52	3.52	4.05	3.62	4.05	2.57	0.00	0.00	0.00	0.00	10.02	0.00	0.	0.00
24	2.100	30.11	0.17	16.00	348.21	1.53	3.52	4.04	3.61	4.04	2.56	0.00	0.00	0.00	0.00	9.91	0.00	0.	0.00
25	1.890	30.06	0.16	15.78	347.24	1.54	3.51	4.03	3.61	4.03	2.56	0.00	0.00	0.00	0.00	9.80	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 6 BT-11 to BT-12

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM MG/L
26	UPR RCH EACH	0.37412	30.06	0.16	15.78	347.24	1.54	3.51	4.03	3.61	4.03	2.56	0.00	0.00	0.00	9.80	0.00	0.00
	INCR	-0.00042																

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s		
26	1.89	1.66	0.37370	0.0	0.01193	0.22	1.37	22.86	7077.91	5166.36	31.32	8071.35	0.006	0.134	0.012		
27	1.66	1.44	0.37328	0.0	0.01192	0.22	1.37	22.86	7077.91	5166.36	31.32	8689.25	0.006	0.144	0.012		
28	1.44	1.21	0.37286	0.0	0.01191	0.22	1.37	22.86	7077.91	5166.36	31.32	9307.15	0.007	0.155	0.012		
29	1.21	0.99	0.37244	0.0	0.01189	0.22	1.37	22.86	7077.91	5166.36	31.32	9925.04	0.007	0.165	0.012		
30	0.99	0.76	0.37202	0.0	0.01188	0.22	1.37	22.86	7077.91	5166.36	31.32	10542.94	0.007	0.175	0.012		
TOT						1.10			35389.57		25831.80						
Avg					0.0119		1.37	22.86			31.32						
Cum					6.81												

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE mg/L	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE 1/d	ALG PROD *	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d
26	1.664	7.53	0.62	0.44	0.06	0.00	0.04	0.06	0.00	0.19	0.19	0.19	0.15	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
27	1.438	7.52	0.62	0.48	0.06	0.00	0.05	0.06	0.00	0.19	0.19	0.19	0.20	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
28	1.212	7.51	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.19	0.19	0.19	0.22	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
29	0.986	7.50	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.19	0.19	0.19	0.22	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
30	0.760	7.49	0.62	0.50	0.06	0.00	0.05	0.06	0.00	0.19	0.19	0.19	0.23	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C	RATE	0.51	0.31	0.05	0.00	0.03	0.05	0.00	0.10			0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
26	1.664	30.14	0.17	15.78	347.24	1.80	3.65	4.04	3.75	4.04	2.71	0.00	0.00	0.00	0.00	10.24	0.00	0.	0.00
27	1.438	30.22	0.18	15.78	347.24	1.95	3.74	4.04	3.84	4.04	2.82	0.00	0.00	0.00	0.00	10.68	0.00	0.	0.00
28	1.212	30.29	0.18	15.78	347.24	2.07	3.81	4.04	3.92	4.04	2.92	0.00	0.00	0.00	0.00	11.12	0.00	0.	0.00
29	0.986	30.37	0.19	15.78	347.24	2.15	3.87	4.04	3.99	4.04	3.01	0.00	0.00	0.00	0.00	11.56	0.00	0.	0.00
30	0.760	30.45	0.20	15.78	347.24	2.21	3.92	4.03	4.04	4.03	3.09	0.00	0.00	0.00	0.00	12.00	0.00	0.	0.00

FINAL REPORT BT01
 REACH NO. 7 BT-12 to ICWW

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW deg C	TEMP ppt	SALN	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A μg/L	COLI #/100mL	NCM MG/L
31	UPR RCH EACH	0.37202	30.45	0.20	15.78	347.24	2.21	3.92	4.03	4.04	4.03	3.09	0.00	0.00	0.00	12.00	0.00	0.00
	INCR	-0.00035																

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s		
31	0.76	0.57	0.37167	0.0	0.01187	0.19	1.37	22.86	5950.46	4343.40	31.32	11062.41	0.008	0.184	0.012		
32	0.57	0.38	0.37131	0.0	0.01186	0.19	1.37	22.86	5950.46	4343.40	31.32	11581.88	0.008	0.192	0.012		
33	0.38	0.19	0.37096	0.0	0.01184	0.19	1.37	22.86	5950.46	4343.40	31.32	12101.35	0.009	0.201	0.012		
34	0.19	0.00	0.37061	0.0	0.01183	0.19	1.37	22.86	5950.46	4343.40	31.32	12620.82	0.009	0.210	0.012		
TOT						0.74			23801.83		17373.60						
Avg						0.0119											
CUM						7.55											

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE mg/L	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d	
31	0.570	7.46	0.62	0.51	0.06	0.00	0.05	0.06	0.00	0.00	0.00	0.00	0.15	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
32	0.380	7.43	0.62	0.51	0.06	0.00	0.05	0.06	0.00	0.00	0.00	0.00	0.15	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
33	0.190	7.40	0.63	0.52	0.07	0.00	0.05	0.07	0.00	0.00	0.00	0.00	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
34	0.000	7.37	0.63	0.52	0.07	0.00	0.05	0.07	0.00	0.00	0.00	0.00	0.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C	RATE	0.51	0.31	0.05	0.00	0.03	0.05	0.00	0.00	0.00	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II IN MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m³	COLI #/100mL	NCM MG/L
31	0.570	30.70	0.17	15.78	347.23	2.31	3.97	3.95	4.12	3.95	3.00	0.00	0.00	0.00	0.00	14.52	0.00	0.	0.00
32	0.380	30.95	0.15	15.78	347.16	2.40	4.01	3.87	4.18	3.87	2.92	0.00	0.00	0.00	0.00	17.05	0.00	0.	0.00
33	0.190	31.21	0.12	15.82	346.24	2.47	4.04	3.78	4.23	3.78	2.83	0.00	0.00	0.00	0.00	19.58	0.00	0.	0.00
34	0.000	31.46	0.10	16.21	335.27	2.68	4.05	3.67	4.27	3.67	2.75	0.00	0.00	0.00	0.00	22.10	0.00	0.	0.00

STREAM SUMMARY
 BT01

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

TRAVEL TIME = 7.55 DAYS

MAXIMUM EFFLUENT = 0.00 PERCENT

FLOW = 0.12073 TO 0.37412 m³/s

DISPERSION = 0.0079 TO 0.2095 m²/s

VELOCITY = 0.00579 TO 0.01404 m/s

DEPTH = 0.71 TO 1.66 m

WIDTH = 14.32 TO 22.86 m

BOD DECAY = 0.23 TO 0.52 per day

NH3 DECAY = 0.00 TO 0.00 per day

SOD = 0.00 TO 4.25 g/m²/d

NH3 SOURCE = 0.00 TO 0.00 g/m²/d

REAERATION = 0.51 TO 1.18 per day

BOD SETTLING = 0.06 TO 0.07 per day

NBOD DECAY = 0.04 TO 0.23 per day

NBOD SETTLING = 0.03 TO 0.03 per day

TEMPERATURE = 29.69 TO 31.46 deg C

DISSOLVED OXYGEN = 1.42 TO 2.68 mg/L

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m³/s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft
1	Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2	Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3	BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4	BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5	BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6	BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7	BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.... BEGIN SENSITIVITY RUN 1 ON PARAMETER SET 1 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 12 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.13	0.13816	0.01814	0.532	14.32	4.878	0.060	1.745	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.16	0.14831	0.01701	0.609	14.32	5.237	0.056	1.998	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.58	0.12073	0.01845	0.497	14.32	4.263	0.061	1.631	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	1.50	0.15412	0.01536	0.616	14.63	5.442	0.050	2.021	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	1.62	0.37412	0.01197	1.162	18.90	13.210	0.039	3.813	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	0.77	0.37202	0.01701	0.959	22.86	13.136	0.056	3.146	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.52	0.37061	0.01693	0.959	22.86	13.086	0.056	3.146	75.00

.....BEGIN SENSITIVITY RUN 2 ON PARAMETER SET 1 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.25	0.13816	0.00977	0.988	14.32	4.878	0.032	3.242	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.29	0.14831	0.00916	1.131	14.32	5.237	0.030	3.711	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	1.08	0.12073	0.00993	0.923	14.32	4.263	0.033	3.028	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.78	0.15412	0.00827	1.144	14.63	5.442	0.027	3.753	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	3.02	0.37412	0.00645	2.158	18.90	13.210	0.021	7.080	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.43	0.37202	0.00916	1.781	22.86	13.136	0.030	5.843	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.96	0.37061	0.00912	1.781	22.86	13.086	0.030	5.843	75.00

.....BEGIN SENSITIVITY RUN 3 ON PARAMETER SET 2 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.27	0.09671	0.00889	0.760	14.32	3.415	0.029	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.32	0.10382	0.00833	0.870	14.32	3.666	0.027	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	1.26	0.07624	0.00851	0.710	14.32	2.692	0.028	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	3.35	0.09961	0.00688	0.880	14.63	3.517	0.023	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	3.48	0.25361	0.00559	1.660	18.90	8.955	0.018	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.62	0.25151	0.00806	1.370	22.86	8.881	0.026	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	1.10	0.25010	0.00800	1.370	22.86	8.831	0.026	4.495	75.00

.....BEGIN SENSITIVITY RUN 4 ON PARAMETER SET 2 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.15	0.17961	0.01650	0.760	14.32	6.342	0.054	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.17	0.19280	0.01548	0.870	14.32	6.808	0.051	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.62	0.16522	0.01730	0.710	14.32	5.834	0.057	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	1.58	0.20863	0.01462	0.880	14.63	7.367	0.048	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	1.74	0.49463	0.01118	1.660	18.90	17.465	0.037	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	0.83	0.49253	0.01575	1.370	22.86	17.391	0.052	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.56	0.49112	0.01570	1.370	22.86	17.341	0.052	4.495	75.00

.....BEGIN SENSITIVITY RUN 5 ON PARAMETER SET 3 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 6 ON PARAMETER SET 3 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 12 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 7 ON PARAMETER SET 4 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 12 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.27	0.13816	0.00889	0.760	20.46	4.878	0.029	2.494	67.12
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.32	0.14831	0.00833	0.870	20.46	5.237	0.027	2.854	67.12
3 BT-08 to BT-09	6.49	5.56	0.93	1.19	0.12073	0.00904	0.710	20.46	4.263	0.030	2.330	67.12
4 BT-09 to BT-10	5.56	3.57	1.99	3.06	0.15412	0.00753	0.880	20.90	5.442	0.025	2.887	68.57
5 BT-10 to BT-11	3.57	1.89	1.68	3.31	0.37412	0.00587	1.660	27.00	13.210	0.019	5.446	88.59
6 BT-11 to BT-12	1.89	0.76	1.13	1.57	0.37202	0.00833	1.370	32.66	13.136	0.027	4.495	107.15
7 BT-12 to ICWW	0.76	0.00	0.76	1.06	0.37061	0.00830	1.370	32.66	13.086	0.027	4.495	107.15

.....BEGIN SENSITIVITY RUN 8 ON PARAMETER SET 4 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.15	0.13816	0.01650	0.760	11.02	4.878	0.054	2.494	36.14
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.17	0.14831	0.01548	0.870	11.02	5.237	0.051	2.854	36.14
3 BT-08 to BT-09	6.49	5.56	0.93	0.64	0.12073	0.01679	0.710	11.02	4.263	0.055	2.330	36.14
4 BT-09 to BT-10	5.56	3.57	1.99	1.65	0.15412	0.01398	0.880	11.25	5.442	0.046	2.887	36.92
5 BT-10 to BT-11	3.57	1.89	1.68	1.78	0.37412	0.01090	1.660	14.54	13.210	0.036	5.446	47.70
6 BT-11 to BT-12	1.89	0.76	1.13	0.85	0.37202	0.01548	1.370	17.58	13.136	0.051	4.495	57.70
7 BT-12 to ICWW	0.76	0.00	0.76	0.57	0.37061	0.01541	1.370	17.58	13.086	0.051	4.495	57.70

.....BEGIN SENSITIVITY RUN 9 ON PARAMETER SET 5 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	AVG	FLOW AT	AVERAGE	Avg	Avg

NO.	DIST km	DIST km	LENGTH km	TIME days	EOR m3/s	VELO m/s	DEPTH m	WIDTH m	EOR cfs	VELO fps	DEPTH ft	WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 10 ON PARAMETER SET 5 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 11 ON PARAMETER SET 6 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 16 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 12 ON PARAMETER SET 6 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 13 ON PARAMETER SET 7 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98

4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 14 ON PARAMETER SET 7 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 15 ON PARAMETER SET 8 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00

7 BT-12 to ICWW 0.76 0.00 0.76 0.74 0.37061 0.01185 1.370 22.86 13.086 0.039 4.495 75.00

.....BEGIN SENSITIVITY RUN 16 ON PARAMETER SET 8 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 17 ON PARAMETER SET 9 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 18 ON PARAMETER SET 9 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 19 ON PARAMETER SET 10 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 20 ON PARAMETER SET 10 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 21 ON PARAMETER SET 11 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 22 ON PARAMETER SET 11 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 17 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 23 ON PARAMETER SET 12 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 24 ON PARAMETER SET 12 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 25 ON PARAMETER SET 13 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 26 ON PARAMETER SET 13 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 13 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 27 ON PARAMETER SET 14 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 28 ON PARAMETER SET 14 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 12 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	Avg	FLOW AT	AVERAGE	Avg	Avg

NO.	DIST km	DIST km	LENGTH km	TIME days	EOR m3/s	VELO m/s	DEPTH m	WIDTH m	EOR cfs	VELO fps	DEPTH ft	WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 29 ON PARAMETER SET 15 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 30 ON PARAMETER SET 15 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 31 ON PARAMETER SET 16 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH
NO.	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 32 ON PARAMETER SET 16 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH
NO.	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98

4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 33 ON PARAMETER SET 17 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.20	0.13538	0.01244	0.760	14.32	4.780	0.041	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.23	0.14249	0.01144	0.870	14.32	5.031	0.038	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.87	0.11491	0.01234	0.710	14.32	4.057	0.040	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.33	0.13828	0.00990	0.880	14.63	4.883	0.032	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.82	0.29228	0.00688	1.660	18.90	10.320	0.023	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.41	0.29018	0.00929	1.370	22.86	10.246	0.030	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.95	0.28877	0.00924	1.370	22.86	10.196	0.030	4.495	75.00

.....BEGIN SENSITIVITY RUN 34 ON PARAMETER SET 17 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.14094	0.01295	0.760	14.32	4.977	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.15413	0.01237	0.870	14.32	5.442	0.041	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.80	0.12655	0.01349	0.710	14.32	4.469	0.044	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	1.98	0.16996	0.01160	0.880	14.63	6.001	0.038	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	1.97	0.45596	0.00987	1.660	18.90	16.100	0.032	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	0.90	0.45386	0.01452	1.370	22.86	16.026	0.048	4.495	75.00

7 BT-12 to ICWW 0.76 0.00 0.76 0.61 0.45245 0.01446 1.370 22.86 15.976 0.047 4.495 75.00

.....BEGIN SENSITIVITY RUN 35 ON PARAMETER SET 18 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.80	0.12900	0.01343	0.710	14.32	4.555	0.044	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.02	0.16239	0.01140	0.880	14.63	5.734	0.037	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.25	0.38239	0.00866	1.660	18.90	13.502	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.07	0.38092	0.01218	1.370	22.86	13.450	0.040	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.72	0.37994	0.01214	1.370	22.86	13.416	0.040	4.495	75.00

.....BEGIN SENSITIVITY RUN 36 ON PARAMETER SET 18 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.87	0.11246	0.01239	0.710	14.32	3.971	0.041	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.28	0.14585	0.01011	0.880	14.63	5.150	0.033	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.40	0.36585	0.00810	1.660	18.90	12.918	0.027	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.12	0.36312	0.01163	1.370	22.86	12.822	0.038	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.76	0.36128	0.01156	1.370	22.86	12.757	0.038	4.495	75.00

.....BEGIN SENSITIVITY RUN 37 ON PARAMETER SET 19 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 38 ON PARAMETER SET 19 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 39 ON PARAMETER SET 20 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 40 ON PARAMETER SET 20 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 41 ON PARAMETER SET 21 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 16 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 42 ON PARAMETER SET 21 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 43 ON PARAMETER SET 22 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg Depth m	Avg Width m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg Depth ft	Avg Width ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 44 ON PARAMETER SET 22 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg Depth m	Avg Width m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg Depth ft	Avg Width ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 45 ON PARAMETER SET 23 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 46 ON PARAMETER SET 23 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 47 ON PARAMETER SET 24 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	Avg	FLOW AT	AVERAGE	Avg	Avg

NO.	DIST km	DIST km	LENGTH km	TIME days	EOR m3/s	VELO m/s	DEPTH m	WIDTH m	EOR cfs	VELO fps	DEPTH ft	WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 48 ON PARAMETER SET 24 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 49 ON PARAMETER SET 25 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 50 ON PARAMETER SET 25 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH
NO.	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 51 ON PARAMETER SET 26 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH
NO.	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.27	0.09949	0.00914	0.760	14.32	3.513	0.030	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.30	0.10964	0.00880	0.870	14.32	3.871	0.029	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	1.18	0.08206	0.00909	0.710	14.32	2.898	0.030	2.330	46.98

4 BT-09 to BT-10	5.56	3.57	1.99	2.98	0.11545	0.00773	0.880	14.63	4.077	0.025	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.75	0.33545	0.00706	1.660	18.90	11.845	0.023	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.23	0.33335	0.01067	1.370	22.86	11.771	0.035	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.83	0.33194	0.01062	1.370	22.86	11.721	0.035	4.495	75.00

.....BEGIN SENSITIVITY RUN 52 ON PARAMETER SET 26 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.15	0.17683	0.01625	0.760	14.32	6.244	0.053	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.18	0.18698	0.01501	0.870	14.32	6.602	0.049	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.64	0.15940	0.01673	0.710	14.32	5.628	0.055	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	1.67	0.19279	0.01377	0.880	14.63	6.807	0.045	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.01	0.41279	0.00968	1.660	18.90	14.576	0.032	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.00	0.41069	0.01314	1.370	22.86	14.501	0.043	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.67	0.40928	0.01309	1.370	22.86	14.452	0.043	4.495	75.00

.....BEGIN SENSITIVITY RUN 53 ON PARAMETER SET 27 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00

7 BT-12 to ICWW 0.76 0.00 0.76 0.74 0.37061 0.01185 1.370 22.86 13.086 0.039 4.495 75.00

.....BEGIN SENSITIVITY RUN 54 ON PARAMETER SET 27 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 55 ON PARAMETER SET 28 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 11 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

. BEGIN SENSITIVITY RUN 56 ON PARAMETER SET 28 AND COLUMN 2
 HYDRAULIC CALCULATIONS COMPLETED
 TRIDIAGONAL MATRIX TERMS INITIALIZED
 OXYGEN DEPENDENT RATES CONVERGENT IN 9 ITERATIONS
 CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

. BEGIN SENSITIVITY RUN 57 ON PARAMETER SET 29 AND COLUMN 1
 HYDRAULIC CALCULATIONS COMPLETED
 TRIDIAGONAL MATRIX TERMS INITIALIZED
 OXYGEN DEPENDENT RATES CONVERGENT IN 16 ITERATIONS
 CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

. BEGIN SENSITIVITY RUN 58 ON PARAMETER SET 29 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 59 ON PARAMETER SET 30 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 60 ON PARAMETER SET 30 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 61 ON PARAMETER SET 31 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 62 ON PARAMETER SET 31 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg Depth m	Avg Width m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg Depth ft	Avg Width ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 63 ON PARAMETER SET 32 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg Depth m	Avg Width m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg Depth ft	Avg Width ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
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6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 64 ON PARAMETER SET 32 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 65 ON PARAMETER SET 33 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 66 ON PARAMETER SET 33 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	AVG	FLOW AT	AVERAGE	Avg	Avg

NO.	DIST km	DIST km	LENGTH km	TIME days	EOR m3/s	VELO m/s	DEPTH m	WIDTH m	EOR cfs	VELO fps	DEPTH ft	WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 67 ON PARAMETER SET 34 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
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7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 68 ON PARAMETER SET 34 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
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1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 69 ON PARAMETER SET 35 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH
NO.	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 70 ON PARAMETER SET 35 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH
NO.	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98

4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 71 ON PARAMETER SET 36 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 72 ON PARAMETER SET 36 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00

7 BT-12 to ICWW 0.76 0.00 0.76 0.74 0.37061 0.01185 1.370 22.86 13.086 0.039 4.495 75.00

.....BEGIN SENSITIVITY RUN 73 ON PARAMETER SET 37 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 74 ON PARAMETER SET 37 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 75 ON PARAMETER SET 38 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 76 ON PARAMETER SET 38 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 77 ON PARAMETER SET 39 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 78 ON PARAMETER SET 39 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 79 ON PARAMETER SET 40 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 80 ON PARAMETER SET 40 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 81 ON PARAMETER SET 41 AND COLUMN 1

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg Depth m	Avg Width m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg Depth ft	Avg Width ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 82 ON PARAMETER SET 41 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg Depth m	Avg Width m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg Depth ft	Avg Width ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 83 ON PARAMETER SET 42 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 84 ON PARAMETER SET 42 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 85 ON PARAMETER SET 43 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME	BEGIN	ENDING	REACH	TRAVEL	FLOW AT	AVERAGE	Avg	AVG	FLOW AT	AVERAGE	Avg	Avg

NO.	DIST km	DIST km	LENGTH km	TIME days	EOR m3/s	VELO m/s	DEPTH m	WIDTH m	EOR cfs	VELO fps	DEPTH ft	WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 86 ON PARAMETER SET 43 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 87 ON PARAMETER SET 44 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 88 ON PARAMETER SET 44 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH
NO.	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 89 ON PARAMETER SET 45 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME	BEGIN DIST	ENDING DIST	REACH LENGTH	TRAVEL TIME	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH	FLOW AT EOR	AVERAGE VELO	Avg DEPTH	Avg WIDTH
NO.	km	km	km	days	m3/s	m/s	m	m	cfs	fps	ft	ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98

4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 90 ON PARAMETER SET 45 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 91 ON PARAMETER SET 46 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00

7 BT-12 to ICWW 0.76 0.00 0.76 0.74 0.37061 0.01185 1.370 22.86 13.086 0.039 4.495 75.00

.....BEGIN SENSITIVITY RUN 92 ON PARAMETER SET 46 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 93 ON PARAMETER SET 47 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 94 ON PARAMETER SET 47 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 95 ON PARAMETER SET 48 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6 BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 96 ON PARAMETER SET 48 AND COLUMN 2

.....HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3 BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5 BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
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7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 97 ON PARAMETER SET 49 AND COLUMN 1
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
 DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH REACH NAME NO.	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
1 Weir #3 to Bayou Cane	6.93	6.72	0.21	0.19	0.13816	0.01269	0.760	14.32	4.878	0.042	2.494	46.98
2 Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
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4 BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
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7 BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....BEGIN SENSITIVITY RUN 98 ON PARAMETER SET 49 AND COLUMN 2
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

LOWER BAYOU TERREBONNE MODEL CALIBRATION MODEL 6/27/05
DOWNSTREAM OF THE WEIR #3 (SONIC WEIR)

REACH SUMMARY REPORT FOR BT01

RCH	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	Avg DEPTH m	Avg WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	Avg DEPTH ft	Avg WIDTH ft
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2	Bayou Cane to BT-08	6.72	6.49	0.23	0.22	0.14831	0.01190	0.870	14.32	5.237	0.039	2.854	46.98
3	BT-08 to BT-09	6.49	5.56	0.93	0.83	0.12073	0.01291	0.710	14.32	4.263	0.042	2.330	46.98
4	BT-09 to BT-10	5.56	3.57	1.99	2.14	0.15412	0.01075	0.880	14.63	5.442	0.035	2.887	48.00
5	BT-10 to BT-11	3.57	1.89	1.68	2.32	0.37412	0.00838	1.660	18.90	13.210	0.028	5.446	62.01
6	BT-11 to BT-12	1.89	0.76	1.13	1.10	0.37202	0.01191	1.370	22.86	13.136	0.039	4.495	75.00
7	BT-12 to ICWW	0.76	0.00	0.76	0.74	0.37061	0.01185	1.370	22.86	13.086	0.039	4.495	75.00

.....EXECUTION COMPLETED